## Rocky Flats Stewardship Council Letter dated August 30, 2006

1. The Stewardship Council strongly believes DOE, EPA, and CDPHE cannot approve the Proposed Plan without duly considering and discussing the full suite of issues that comprise regulatory closure. For that reason, in discussing the Proposed Plan, the Stewardship Council is raising issues that will be addressed later in other, related decision documents.

The RFLMA will implement the remedy requirements outlined in the CAD/ROD and will undergo a public review and comment process, including a formal public comment period.

2. As the Local Stakeholder Organization for Rocky Flats, the Stewardship Council asks DOE to not simply reply to these issues in writing but to discuss as necessary and as appropriate these issues directly with the Board. Further, while the Stewardship Council represents a broad segment of the community, there are various perspectives in the community regarding the cleanup and Proposed Plan. The Stewardship Council encourages DOE, EPA, and CDPHE to continue to consider all points of view. The Stewardship Council supports Alternative 2...

DOE will continue to interact with all interested parties and stakeholders throughout the regulatory completion process.

3. While all four groundwater treatment systems have experienced a variety of maintenance needs ranging from minor maintenance to severe operational problems over the lifetime of the units, recent operational problems with the Solar Ponds groundwater treatment system calls into question its ability to function as described in the Proposed Plan. The Solar Ponds treatment system was installed in 1999 to treat both uranium and nitrate contamination in groundwater before it emerges as surface water in North Walnut Creek. Between 1999 and 2005 the treatment system effectively lowered nitrate and uranium concentrations in groundwater that passed through the treatment cells. In 2005 a series of operational problems began to degrade the effectiveness of the treatment system. System component failures were discovered which included both nitrate treatment media ineffectiveness and material failures (piping, valves, etc.).

The SPPTS has undergone substantial repair and maintenance in the summer and fall of 2006. These actions are expected to restore the system to its original operating condition, which has been shown to be effective in treating nitrate and uranium isotopes in shallow groundwater in the vicinity of the historic Solar Ponds. Continued maintenance of the system to ensure its long-term effectiveness is a requirement of the CAD/ROD.

- 4. Adding to our questions and concerns is a recent comment by DOE that the agency may petition the Colorado Water Quality Control Commission to raise the allowable level of nitrates in surface water at Rocky Flats. The current standard for nitrate, which is in force until 2009, is an interim standard of 100 milligrams/liter (mg/l) that the agencies adopted with the consent of the cities of Broomfield and Westminster. This interim standard was adopted with the recognition that the standard of 10 mg/l could not be met until the treatment system was installed and operating properly, so an interim cleanup standard was adopted. If the interim nitrate standard became permanent, this change would likely obviate the need to fix the Solar Ponds treatment system and/or treat all of the contaminated groundwater.
- The repairs and maintenance provided for the SPPTS are expected to restore the system to a fully operational condition. When the collection trench for the SPPTS was constructed as part of the accelerated action for this area, it was recognized that a portion of the Solar Ponds groundwater contaminant plume could not be captured due to engineering constraints on the placement of the collection trench. The Groundwater IM/IRA revisited the groundwater contamination in the vicinity of the Solar Ponds, and concluded that there were no additional steps that could reasonably be taken to treat shallow groundwater contamination emanating from the historic Solar Ponds, apart from enhancement techniques such as phyto-remediation. This conclusion is incorporated into the CAD/ROD, which does not propose additional groundwater treatment at Rocky Flats. The CAD/ROD is based upon the underlying water quality standard for nitrate of 10 mg/l (as N) in the selection of the final remedy, which includes continued operation of the SPPTS.
- 5. The Stewardship Council strongly supports the decision to prohibit access to DOE-retained lands. The Board understands the RI/FS and Proposed Plan provide DOE will install a cattle fence along the boundary between United States Fish and Wildlife Service (USFWS) lands and DOE lands, with signs every 50' noting access to DOE-retained lands is prohibited. The Board further understands DOE and the regulatory agencies do not consider the fence to be part of the cleanup remedy; it is instead a land management tool USFWS and DOE will utilize to assist each agency in accomplishing their respective responsibilities. The Stewardship Council believes a fence is warranted. We further believe that as discussed at length in the Board's June 15, 2006, letter to USFWS, signage throughout the site remains critical. Taken together, the fence and signs will not deter those intent on disturbing the remedies, but should protect the remedies from those who would otherwise unintentionally wander into DOE lands.
- A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. Therefore, a fence is not required in the CAD/ROD However, DOE and USFWS have agreed that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU. In addition, DOE and the regulators have agreed to post signs at the main pedestrian and vehicle entrance gates into the Central OU outlining the specific institutional control restrictions from the CAD/ROD and

Yet, a boundary fence with signs is not alone sufficient, so following the recommendation of the National Research Council in its August 2000 report to DOE on long-term stewardship, long-term stewardship controls must be layered to protect the remedies. Layering could include signage or fencing around the two landfills, signage or fencing adjacent to or surrounding the A-, B- and C-series ponds, and signs around the three groundwater treatment systems reminding DOE personnel (including contractor personnel) that digging is prohibited. These types of controls are, importantly, designed to protect the remedies from people and not people from the remedies.

The Stewardship Council is not prepared to specify at this time the remedy-specific controls that DOE, EPA, and CDPHE should adopt. Instead the Proposed Plan and/or other appropriate regulatory documents should identify the need for additional controls and DOE, EPA, and CDPHE should continue the ongoing public dialogue about the types of controls that are needed.

environmental covenant.

The concept of layered controls is embodied within the selected remedy for the Central OU, however not in the form of layered fences. The layered controls include signs as a required physical control, ongoing ownership by DOE to prevent digging, water usage, and other prohibited activities, routine presence and observation by DOE and contractor staff, and an environmental covenant with the State of Colorado restricting use of the Central OU in perpetuity.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment.

6. In addition to physical controls (e.g., fences and signs) DOE, EPA, and CDPHE, along with USFWS, must also develop and implement legal controls (otherwise known as "institutional controls"). Towards this end, the RI/FS identifies the following prohibitions... The Stewardship Council believes these prohibitions are complete and as DOE, EPA, and CDPHE proceed with regulatory closure, the agencies must specify in detail how such restrictions will be legally enforced (e.g., regulatory closure documents, state environmental covenant) and how such information will be communicated to the appropriate people, including but not limited to both DOE and USFWS personnel (e.g., signage, staff training).

The Proposed Plan develops broad alternatives for remedial action. Approval of the CAD/ROD will select the alternative and establish the requirements to implement that alternative. More detailed information describing how the DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the Rocky Flats Legacy Management Agreement (RFLMA). The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

7. One shortfall of the Proposed Plan is that it only addresses

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Per the Refuge Act the DOE may access any areas, whether in the

those areas the DOE will retain. Nevertheless, as we know DOE will be charged with managing monitoring stations on refuge lands. It is therefore imperative that the Proposed Plan and any other applicable regulatory documents specify that these controls also apply to those areas of the refuge that include these monitoring stations.

Central OU or Peripheral OU, which are required for monitoring or remedy purposes. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed.

8. Central to the development, implementation, and modification of the monitoring program is the Integrated Monitoring Plan (IMP). The IMP served two roles. First and most important, the IMP codifies the monitoring network and regulatory basis for making changes to the current surface water, air, ecological and groundwater monitoring systems. The IMP also establishes the frequency and process by which DOE notifies the community of problems with the system and potential changes. This process, which has also included collaborating with the community members on the establishment of the post-closure monitoring network, has been extremely valuable and the Stewardship Council wants to ensure this important dialogue continues post-closure.

The IMP is identified in the CAD/ROD as a key reference to identify the monitoring requirements. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment.

9. The Stewardship Council understands DOE, EPA, and CDPHE will likely use the Long-Term Surveillance and Monitoring Plan (LTSMP) to codify the post-closure monitoring requirements, but we do not know if the LTSMP will include the process established in the current IMP where local government and other community members actively participate in decision making. The Stewardship Council therefore strongly recommends DOE, EPA, and CDPHE continue the ongoing dialogue with the community that is currently the practice under the IMP.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. Public participation will be described in an appendix to the RFLMA. The RFLMA will be released for public review and comment.

10. Specifically, water in the terminal ponds is only tested prior to releases – and yet, in some years there will be no discharges. Thus, in those years, water in the terminal ponds will not be

The CAD/ROD identifies surface water monitoring requirements which are adequate to ensure the continuing protectiveness of the remedy, and to ensure that water leaving Rocky Flats continues to

tested. The Stewardship Council strongly recommends that in the event water is not discharged in a given year, DOE should nevertheless test water in the terminal ponds no less than one time per year to measure water quality and thus determine remedy effectiveness.

Such language should be captured in all applicable regulatory documents.

meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment.

11. The Stewardship Council feels confident that the Interim Surveillance and Maintenance Plan, which will be adopted as the LTSMP (with slight modifications) after approval of the CAD/ROD, is thorough and we urge its adoption.

The Interim Surveillance and Maintenance Plan was an internal working document. The IMP is identified in the CAD/ROD as a key reference to identify the monitoring requirements. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. An LTS&MP has not been issued and is not part of the Proposed Plan.

12. Currently the RI/FS and Proposed Plan include a map delineating the lands to be transferred to USFWS and the lands to be retained by DOE. The RI/FS notes that the boundaries may be adjusted and any such adjustments would be included in the CAD/ROD and not the Proposed Plan. The Stewardship Council is comfortable with this approach, but strongly believes that while the CAD/ROD is not a public document, DOE, EPA, and CDPHE must continue to brief and work with the Stewardship Council on the development of that important regulatory document.

The final Central OU boundary is on CAD/ROD Figure 3. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment, and thus will provide the opportunity for continued public involvement in the details of implementing the CAD/ROD requirements.

Letter from Greg Marsh, Rocky Flats Cleanup Commission dated August 30, 2006

1. Mr. Stone proposed long ago, construction of a trench down to bed rock filled with packed clays, and maybe the right membrane, upstream (west) of the remaining messes, and curved east on the north and south ends would properly drain and divert ground water around existing contamination and would prevent its contamination in the first place.

The Groundwater IM/IRA, released for public comment and approved by the regulators, considered a variety of groundwater treatment alternatives, including extensive use of barrier walls. The selected alternative (i.e., smaller and targeted treatment systems) were preferred due to consideration of greater overall effectiveness, CERCLA preference for treatment, and cost and

time to construct. The RI/FS included the results of the Groundwater IM/IRA as part of the comprehensive analysis, and concluded that no additional remedial actions can reasonably be taken. Also, passage of the Rocky Flats National Wildlife Refuge Act in 2001 created additional considerations. The environmental impact to install the large-scale remedy suggested in this comment would be counter to one of the refuge purposes of restoring and preserving native ecosystems.

2. At the last public meeting in Arvada on 31/8, supposedly to gather public comments, it seemed that this was a charade required in their contract, put on for community appearement at huge cost to the taxpayers.

The Public Hearing conducted on August 31, 2006 was to gather comment from the public on the Proposed Plan. It was a formal hearing conducted in accordance with regulatory guidance, including use of a facilitator and court reporter to ensure verbatim transcription of oral public comments.

## Letter from Rocky Flats Cold War Museum dated August 31, 2006

1. The RFCWM proposes that DOE help fund and develop the museum as an "interpretive center" that becomes an integral part of the proposed remedy itself. What is envisioned is something similar to what is in place at the Weldon Spring, Missouri site (visitor center), the Hanford Reach site ("Gateway to the Hanford Reach National Monument") or the Atomic Testing Museum in Las Vegas (with respect to informing about the Nevada Test Site), or what is being considered for the Mound site in Ohio. DOE would help fund the initial construction of a building on the museum's donated property near the old West Gate entry to the Rocky Flats site. The RFCWM will raise the additional money needed for the building and other planned outdoor and indoor interpretive elements as part of a public/private capital campaign. In the process, the RFCWM would work cooperatively with DOE and US Fish & Wildlife Service (USF&WS) to develop thematic interpretive displays and exhibits that document:

An interpretive center at Rocky Flats is not necessary to meet the remedy's objective to protect human health and the environment. However, DOE agrees that an interpretive center's role in educating the public about the history of Rocky Flats supports DOE's legacy management mission. DOE looks forward to working with the U.S. Fish & Wildlife Service, Rocky Flats Cold War Museum and other interested stakeholders in developing an interpretive center that mutually supports the sites' future use.

• the pre-history and period of early settlement and ranching

at the site

- the natural and geological history and physical characteristics of the site
- the development of the Rocky Flats plant and its history of weapons production in the context of the Cold War; and
- the story of clean up and related remedial strategies and monitoring efforts designed to protect the long-term health and environment of the area. This would involve specific interpretive displays explaining the scientific and technical aspects of the on-site remedies, including educational programs and tours designed to help the public understand how they were developed, implemented, and monitored.

## Letter from Dayle Dodge, concerned citizen, dated August 28, 2006

1. I suggest a memorial to all who died at the plutonium factory at Rocky Flats both those who died from effects of the fire accidents as well as those who died later of radiation caused disease.

A plaque was dedicated by the Deputy Secretary of Energy for the Rocky Flats site on December 8, 2005. This plaque states:

DEDICATED TO
THE ROCKY FLATS WORKERS AND COMMUNITY

IN COMMEMORATION OF THE CLEANUP AND CLOSURE
OF THE ROCKY FLATS SITE AND
FOR THE CRITICAL CONTRIBUTIONS MADE TO
AMERICA'S NATIONAL AND ENVIRONMENTAL SECURITY

2. First of all I recommend that the grounds remain restricted and fenced off for the next 5,000 years at least, and that anyone who opens these grounds to access by humans and wildlife should be prosecuted for crimes against humanity and wildlife endangerment.

A warning should be posted around Rocky Flats stating the following: WARNING!

A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. However, DOE and USFWS have agreed that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land

Entering these grounds is hazardous to your health and may result in illness and death. Health effects include the following:

Women – may be unable to conceive, or miscarry, or birth a baby with the following conditions:

- an abnormally small head
- mental retardation
- mutations including improperly formed bones, and
- leukemia or the development of cancerous tumors in its lifetime

Men – may develop low sperm counts or sterility, and ALL PEOPLE of all ages will have an increased risk of leukemia or cancers of all kinds - both from low level radiation here and the

interaction of that radiation with other chemicals or viruses that

one has been exposed to such as human papillomary virus implicated in melanoma, or Hepatitis B, implicated in liver cancer.

Besides these risks there may be others. The reproductive effects

could still show up in your grandchildren or your great grandchildren even if you don't seem to be directly effected by the radiation.

We recommend strongly that you visit either nearby Golden Gate or Eldora State Parks as shown on the following map.

Show a Colorado State Parks map with Golden Gate and El Dorado on it.

retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Signs and fencing on the outer boundary of the site, marking the future wildlife refuge (currently the Peripheral OU) boundary, are not a part of this decision and will be established as described in the Comprehensive Conservation Plan developed by the U.S. Fish & Wildlife Service.

## Email from Hildegard Hix to Robert Darr dated September 6, 2006

1. On Aug. 31, 2006 I attended the "Public Hearing to submit comments on the Proposed Plan for Rocky Flats." I was pleased to note that there were three meetings planned with two on the 31<sup>st</sup>. I attended the three o'clock meeting at the Arvada Center. Once the moderator began the meeting and announced the ground rules, I realized that everyone connected with this farce had no real interest in hearing what the public had to say. This was an unbelievable display of bureaucratic arrogance, which immediately made it evident that the purpose of the meeting was not to consider what the public view was, rather to fulfill a mandate to hold a public meeting. It certainly in no way reflected holding a "hearing."

When there are a great many speakers, it makes sense to have a three minute limit. Since I was the only speaker, this amount of time could have been expanded. However, I really did not have more to say as we were not allowed to comment on Stewardship issues. I find this very strange as the Proposed Plan has many comments about stewardship in it. Even more bizarre was the fact that we could not ask questions of those at the table, but had to ask questions to those in the back of the room. Who has EVER heard of a "hearing" where questions could not be asked?

The Public Hearing conducted on August 31, 2006 was to gather comment from the public on the Proposed Plan. It was a formal hearing conducted in accordance with regulatory guidance, including use of a facilitator and court reporter to ensure verbatim transcription of oral public comments.

2. Both the cities of Westminster and Broomfield have protected the citizens of the downstream communities through their active oversight role. This CAD/ROD document needs to be revised to include the same language as is found in the RFCA and the post closure RFCA.

The Rocky Flats Stewardship Council will facilitate communications between DOE and the public concerning its post-CAD/ROD responsibilities. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment.

3. I also wanted to ask why DOE cannot afford to fence the off site monitoring equipment which is so essential to protecting downstream communities. Surely money cannot be a concern.

Per the Refuge Act the DOE may access any areas, whether in the Central OU or Peripheral OU, which are required for monitoring or remedy purposes. DOE will be required to maintain and

With enough money to hire an outside firm to manage the bogus meetings, and the large sum paid to Kaiser-Hill for the early clean up, there must be money for a few fences to enclose vital equipment, which the federal government should be required to build and maintain! Why should this be a local expense? I couldn't ask that question at the meeting.

protect these locations to ensure that they continue to function as designed.

4. I would like to add that all fences should be given legal status and maintained by the federal government whether they are on COU or POU. You cannot prove with a certainty that the POU's are safe/free of contaminants.

A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. However, DOE and USFWS have agreed that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU.

5. I was very disturbed when I read on page 2 of the Fact Sheet that "The Peripheral Operable Units is safe for all uses." This statement is OPINION, not fact! In fact the entire cleanup, out of necessity, is based on educated and in some cases, not so educated assumptions. Assumptions are NOT facts. Many citizens do not agree that the clean up is protective of human health and that wide spread use of the POU is safe for all activities. Even your own publication shows that the Remedial Action Objectives have not been met. On pages 18 and 19, of the Summary, we find that only one out of three of the objectives have been met. On page 18 under objective 2 you state that restoring contaminated groundwater to beneficial use will be done, "whenever practicable in a reasonable time frame." Had someone from the public wanted to know the definitions for

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Signs and fencing on the outer boundary of the site, marking the future wildlife refuge (currently the Peripheral OU) boundary, are not a part of this decision and will be established as described in the Comprehensive Conservation Plan developed by the U.S. Fish & Wildlife Service.

The remedial action objectives you describe relate to the Central OU, not the Peripheral OU. The selected remedy addresses the physical and institutional controls required in the Central OU to address the assumptions used and the remedial action objectives.

"reasonable time frame" or "practicable" they could not have asked. I would like a definition for both. Then, under "Status" DOE admits to not meeting the requirements at all Sentinel wells, and that no other action can be "reasonably" done.

6. There are reports that the original landfill cap has seeps on the surface. Why weren't the recommendations in the Dwyer report followed?

No new seep areas have developed at the Original Landfill (OLF) that were not recognized during design and construction. Seep #7 did express itself at the surface a few months after construction, and now expresses itself higher on the hill. DOE is evaluating the need to extend the french drain system at Seep #7 to intercept this upper area. The design and construction of the OLF accommodate variable moisture/hydrologic conditions on and in the landfill with no compromise in performance. Required surveillance and monitoring are adequate to ensure appropriate evaluation of the landfill performance. The Dwyer report was considered by the DOE, EPA, and CDPHE prior to approval of the Original Landfill IM/IRA.

7. When the instituted protective measures used to date, are inoperable, how is the public supposed to believe that the area is safe now, or ever?

Several treatment systems have undergone routine maintenance and repairs. The SPPTS, in particular, has undergone substantial repair and maintenance in the summer and fall of 2006. These actions are expected to restore the system to its original operating condition, which has been shown to be effective in treating nitrate and uranium isotopes in shallow groundwater in the vicinity of the historic Solar Ponds. Continued maintenance of the system to ensure its long-term effectiveness is a requirement of the CAD/ROD.

8. Signs and the language on the signs should be a large part of the public discussion. I believe that all interested member of the public should be engaged in this discussion not only the LSO. I realize that this does not make the development community happy, but everyone needs to be made aware of the potential dangers. The public needs to know that what you cannot see may be dangerous to your health.

The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU. DOE and

the regulators have agreed to post signs at the main pedestrian and vehicle entrance gates into the Central OU outlining the specific institutional control restrictions from the CAD/ROD and environmental covenant.

9. I have the feeling that if the public was aware of how the 10,000 samples that were taken was evaluated, they would be a good deal less confident about their safety. A lengthy brochure should include a history of the site as written in the Summary (p3), not the opinion piece in the Fact Sheet, plus an explanation of "averaging". The brochure should show the number of acres in the buffer zone and tell how many samples were taken in that area, followed by an explanation of how many acres are in the industrial site and how many samples were taken there. Then there needs to be an explanation of averaging.

The RI examined the topic of your comment in detail and found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. The CAD/ROD includes a more complete summary of the samples used in the analysis and how they were used, than that found in the Proposed Plan or various fact sheets.

10. There should be signs with all of this information at every trail head. Other signs should have warnings that say, "Plutonium has a half life of 24,000 years and can be inhaled."

DOE and the regulators have agreed to post signs at the main pedestrian and vehicle entrance gates into the Central OU outlining the specific institutional control restrictions from the CAD/ROD and environmental covenant.

11. There are many more warnings which should be posted every fifty feet, but as I said before, this needs to be a wide open public process with large participation. However, given your past performance at public meetings and the fact that you wish to wrap this up by September 30, I know that the sign discussion will not happen.

The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU. DOE and the regulators have agreed to post signs at the main pedestrian and vehicle entrance gates into the Central OU outlining the specific institutional control restrictions from the CAD/ROD and environmental covenant.

12. From the beginning RFCLOG meetings in 1999, it was made

The RI found that conditions in the Peripheral OU were suitable

clear to all that the entire area, both the OU and the POU would never be able to be cleaned up enough to allow any safe use. The Refuge Act of 2000 allowed for public hearings which also turned out to be a sham as plan "C" had already been decided on by the developers. The dangers were not allowed to be discussed, and the participants (non-political) were in favor of a far more restrictive use of the land.

for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Signs and fencing on the outer boundary of the site, marking the future wildlife refuge (currently the Peripheral OU) boundary, are not a part of this decision and will be established as described in the Comprehensive Conservation Plan developed by the U.S. Fish & Wildlife Service.

#### Comments from Ms. Hix, Public Hearing August 31, 2006

1. I feel that the fence needs to be a regulatory mandate, and it should be identified in the post-RFCA articles. It should not be just best management practice.

A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. However, DOE and USFWS have agreed that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU.

2. Along the same lines, I'm concerned about the Americium area that is down gradient from the 903 pad; and I think it should be part of the DOE retained land.

The former 903 Pad and areas down-gradient of the Pad are within the Central OU and are therefore part of the land that will be retained by DOE.

3. I think it probably would be rather dangerous to have people on horseback, hiking, or digging up. And I don't think-- I could be wrong, but I don't believe that there's anything that would restrict somebody from going in there and digging, and I don't think it's safe.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. The CAD/ROD selected Alternative 2 which requires use of institutional and physical controls for the Central OU. Digging, tilling, grading and other soil disturbance not consistent with the remedy are prohibited. Excavation and drilling, including for groundwater wells, is prohibited for other than remedy purposes, and surface

water use is similarly restricted. Implementation of the institutional controls in the Central OU will be specifically detailed in the RFLMA, which will be subject to public comment.

4. The other is the sign language. I didn't see anything about it. How many signs, how far apart, and what they're going to say. I think we owe it to the public for people who have not lived here very long to know that it really could be dangerous. I really liked the McKinley bill. I thought it was fair, and I thought it was important. And I know this makes developers unhappy; but I really think that we need to be more concerned about the entire public, particularly since we know that Mother Nature will have her way, and we're going to have years and years and years of hard rain and wind and there could be things uncovered and people could be in danger. And I really feel they should be warned.

The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. The signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU. In addition, DOE and the regulators have agreed to post signs at the main pedestrian and vehicle entrance gates into the Central OU outlining the specific institutional control restrictions from the CAD/ROD and environmental covenant.

#### Letter from City of Arvada dated September 13, 2006

1. The issues and problems surrounding the Solar Ponds Groundwater Treatment System have been well documented and discussed in public forum. Arvada appreciates the steps that DOE, EPA, and CDPHE have taken to try to address and resolve these problems. However, we have serious concerns that, despite the fact that the treatment system has not demonstrated compliance with the requirements of the Rocky Flats Cleanup Agreement or the goals described in the Proposed Plan, it is still considered to be meeting all applicable regulation. It is imperative that DOE make a strong commitment to meeting the action levels set in the Rocky Flats Cleanup Agreement adopted to protect surface water quality on-site. Conversely, if it is not the intent of DOE to meet these requirements, this issue should be addressed in the Proposed Plan, not ignored. The City is confident that DOE will be making its best efforts to comply with all regulations; however, if the Solar Ponds Groundwater Treatment System is not currently working as intended, it does

The SPPTS has undergone substantial repair and maintenance in the summer and fall of 2006. These actions are expected to restore the system to its original operating condition, which has been shown to be effective in treating nitrate and uranium isotopes in shallow groundwater in the vicinity of the historic Solar Ponds. Continued maintenance of the system to ensure its long-term effectiveness is a requirement of the CAD/ROD.

not make sense for the Proposed Plan to imply otherwise.

2. The City supports Alternative 2 of the Proposed Plan in which it is contemplated that the perimeter of the DOE retained land will be posted with signage to inform both wildlife refuge workers and visitors that they are at the boundary of the DOE property (Central OU). The City does support the use of a three-strand fence (also known as a cattle fence) to delineate between Refuge and DOE properties for land management purposes. In addition, a fence will add value as a tool for visitors and workers to more easily identify the property they are on.

Thank you for your comment.

3. The City of Arvada generally supports the Proposed Plan's outline of necessary physical and institutional controls. One issue that needs to be addressed in the Plan is the necessity for DOE to develop physical and institutional controls relative to monitoring stations outside of the DOE retained land. Although on Refuge land, these stations will be the responsibility of DOE and should be addressed in the Plan.

The CAD/ROD requires DOE to maintain and protect monitoring equipment to ensure that it continues to function as designed, regardless of location.

4. The City would like to acknowledge and support the position of the Woman Creek Reservoir Authority and its members as well as the Stewardship Council with regard to testing the water in the terminal ponds at least once per year, regardless of releases. The Proposed Plan indicates testing of water from the terminal ponds only upon a release of that water. With the strong possibility that water may not be discharged some years, it makes sense to test the water at least annually. This is a prudent practice to identify any problems associated with new flows into the pond or contaminants not captured by the upstream monitoring programs.

The CAD/ROD mandates that DOE continue surface water monitoring at the POCs at the discharge points from the three terminal ponds, and that DOE continue to monitor water entering the ponds at the existing POEs. In addition, DOE intends to continue its current best management practice of taking predischarge samples from the ponds prior to releasing water from them. DOE, CDPHE and EPA believe that the surface water monitoring outlined in the CAD/ROD is adequate to ensure the continuing protectiveness of the remedy and to ensure that water leaving Rocky Flats continues to meet water quality standards. Consequently, annual sampling is not a requirement of the CAD/ROD.

Comments from Mr. Johnson, City of Arvada, Public Hearing August 31, 2006

1. Well, because Westminster and Broomfield are here and

The CAD/ROD mandates that DOE continue surface water

speaking tonight, I just wanted to support them in their concerns related to ponds and discharge and the opportunity to sample once a year.

monitoring at the POCs at the discharge points from the three terminal ponds, and that DOE continue to monitor water entering the ponds at the existing POEs. In addition, DOE intends to continue its current best management practice of taking predischarge samples from the ponds prior to releasing water from them. DOE, CDPHE and EPA believe that the surface water monitoring outlined in the CAD/ROD is adequate to ensure the continuing protectiveness of the remedy and to ensure that water leaving Rocky Flats continues to meet water quality standards. Consequently, annual sampling is not a requirement of the CAD/ROD.

2. And we, the City of Arvada, supports a minimal fence such as cow fence for – for land retention demarcation between DOE and wildlife refuge; however, we do feel there may be a need for additional stronger fencing around – around various monitoring sites and treatment systems.

DOE and USFWS believe that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained around the Central OU as a best management practice. The CAD/ROD requires DOE to maintain and protect monitoring equipment to ensure that it continues to function as designed, regardless of location.

## Letter from Carlson, Hammond & Paddock, LLC on behalf of the Woman Creek Reservoir Authority dated September 12, 2006

1. At the outset, the Authority wants specific assurances from DOE and the relevant regulators that a "No Action" determination for the "Peripheral Operable Unit" does not somehow preclude, or in any way prevent, DOE's ongoing obligations for operation and monitoring of the Indiana Street Point of Compliance in the future. "No Action" must not be interpreted to mean "no monitoring." DOE must continue to monitor water quality at the Indiana Street Point of Compliance indefinitely.

The CAD/ROD mandates that DOE retain POCs in surface water at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed. Specific monitoring requirements will be addressed in the RFLMA.

2. In addition to long term DOE monitoring at the Indiana Street Point of Compliance as contemplated under the current version of the RFCA, approval of a "No Action" determination must be conditioned upon appropriate institutional controls, including fencing, at the Indiana Street Point of Compliance.

The CAD/ROD requires DOE to maintain and protect monitoring equipment to ensure that it continues to function as designed, regardless of location.

3. Approval of a "No Action" determination, as contemplated in the "Proposed Plan", must be directly conditioned on requiring DOE's long term monitoring of Woman Creek flows at the Indiana Street Point of Compliance. A "No Action" determination for the "Peripheral Operable Unit" is not appropriate absent a specific requirement that DOE operate and maintain a monitoring station at the Indiana Street Point of Compliance on a long term basis, and thereby confirm that there are no exceedances of the relevant water quality standards at said point of compliance. These long term DOE monitoring obligations must be a requirement set forth in the final Corrective Action Decision/Record of Decision.

The CAD/ROD mandates that DOE retain POCs in surface water at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed.

4. In addition to Indiana Street Point of Compliance requirements, long term DOE monitoring obligations must include, at a minimum, annual sampling events at Pond C-2, regardless of whether releases have occurred from the pond in the past year. Any approval of a "No Action" determination must include such a requirement. Absent an annual sampling event at Pond C-2, a "No Action" determination is inappropriate. Any such long term DOE monitoring obligations must be a requirement set forth in the final Corrective Action Decision/Record of Decision.

The CAD/ROD mandates that DOE continue surface water monitoring at the POCs at the discharge points from the three terminal ponds, and that DOE continue to monitor water entering the ponds at the existing POEs. In addition, DOE intends to continue its current best management practice of taking predischarge samples from the ponds prior to releasing water from them. DOE, CDPHE and EPA believe that the surface water monitoring outlined in the CAD/ROD is adequate to ensure the continuing protectiveness of the remedy and to ensure that water leaving Rocky Flats continues to meet water quality standards. Consequently, annual sampling is not a requirement of the CAD/ROD.

5. The Authority joins in the comments submitted by the Cities of Broomfield, Northglenn and Westminster to the Proposed Plan.

Responses covered by responses to the cities of Broomfield, Westminster, and Northglenn.

## Letter from U.S. Fish and Wildlife Service dated September 12, 2006

1. The U.S. Fish and Wildlife Service (Service) appreciates being able to work with the Rocky Flats Cleanup Agreement (RFCA) Parties on issues related to the Remedial Investigation/Feasibility Study, in particular, the Ecological Risk Assessment. We look forward to working with the RFCA Parties

Thank you for your comment.

on the Corrective Action Decision/Record of Decision (CAD/ROD) and the post-CAD/ROD agreement.

2. The Service is pleased to know that the lands to be transferred for the Rocky Flats National Wildlife Refuge are unrestricted in their use and that the majority of the land is at or below the risk level that both the U.S. Environmental Protection Agency and the Colorado Department of Public Health and Environment require.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. DOE believes this determination will facilitate transition to the wildlife refuge.

3. The Service knows that there will be limited water in the drainages, especially the Walnut Creek Drainage. This combined with the fact that contaminated groundwater in Central Operable Unit (OU) and up-gradient of the terminal ponds is currently being captured and treated before entering the creeks. It is important that any quantity of water that leaves the terminal ponds meet water quality standards before entering future refuge property. We would like to continue to work with the Department of Energy (DOE) to keep water quality as good as technically possible and water quantity to maintain Preble's meadow jumping mouse habitat as much as possible.

DOE expects to continue to collaborate and work cooperatively with the Service as the Peripheral OU transitions to a wildlife refuge.

4. The Service supports the reconfiguration of OUs. The reconfiguration will make the administration and management of these parcels of land easier in the future. We appreciate that the DOE took our previous letter concerning the fence and signs into consideration. We request that the actual, "on-the-ground" location of the fence be a joint endeavor with the RFCA parties and the Service.

DOE expects to work cooperatively during fence installation to minimize impact to sensitive habitat areas and maximize the utility of the fence.

5. The signage that will be posted on the Central OU boundary is important. The Service has previously submitted a recommendation for wording on those signs. We would be willing to work on the language for those signs. We also recommend that DOE ensure the signs are made of durable materials. In the future, we would request that the Service and the DOE cooperatively work on site

DOE intends to install the required signs on the fence surrounding the Central OU. In addition, DOE and the regulators have agreed to post signs at the main pedestrian and vehicle entrance gates into the Central OU outlining the specific institutional control restrictions from the CAD/ROD and environmental covenant. DOE looks forward to working with the Service as interpretive

interpretation signs for the Refuge.	signs for the wildlife refuge are developed.
6. In addition, the letter recommending the fence and the signs also recommends installing permanent markers or monuments demarcating "special areas" such as areas of remaining subsurface contamination, subsurface structures (foundations and process lines), the present landfill, the original landfill, any ash pit or trench that was not totally removed. Nothing in the Proposed Plan addresses anything similar to this recommendation.	DOE looks forward to working with the Service to determine appropriate permanent markers or monuments for the Central OU consistent with the interpretive information in the refuge.
7. The Service agrees that the Ecological Risk Assessment tends to show that there is no unacceptable risk to ecological receptors at the site. However, there were areas of uncertainty that should be taken into account. The Service would like to recommend that minimal biological monitoring continue at the site and that if unexpected morbidity or mortality events occur, that they be reported and investigated.	The CAD/ROD states that additional environmental sampling is indicated to reduce the uncertainties from the Ecological Risk Assessment. More detailed information describing how the DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the Rocky Flats Legacy Management Agreement (RFLMA).
8. The Service supports the selection of Alternative 2. Alternative 1 is not protective of human health and the environment and Alternative 3 increases habitat disturbance with minimal risk reduction and a large cost to implement. We also believe that it is imperative that DOE implement a well-designed and unyielding operation and maintenance program.	DOE agrees with the comment.
9. The Service looks forward to working together to make Rocky Flats a genuine asset to the Denver metropolitan area.	Thank you for the comment.

### Letter from Melody Flora, a concerned citizen, dated September 13, 2006

1. ...It appears that there are still data collection efforts which have not been completed. Specifically, the Ecological Risk Assessment (ERA) repeatedly concludes that "there are no ecological contaminants of concern" ... "because there are no significant risks to ecological receptors or high levels of uncertainty with the data." However, the ERA consistently highlights that "there is

The CRA follows a regulatory agency-approved methodology (DOE 2005) and EPA guidance for Superfund risk assessments (e.g. EPA 1989 and 1997). The data adequacy evaluation in Volume 2 of Appendix A presents the conclusion that the data are generally adequate for conducting the CRA using several lines of evidence (e.g., number of samples, chemicals included in the

considerable uncertainty (low confidence) in the default risk model," or "a high level of uncertainty associated with the use of the upper-bound BAF [bioaccumulation factor], "or "chemical-specific uncertainties." In fact, for most of the exposure units, the calculated hazard quotients using 'conservative' Tier 1 Exposure Point Concentrations (EPCs) and default exposure assumptions were substantially greater than the acceptable value of 1. However, at this stage, professional judgment was used to revise the EPCs and/or decide if contaminants with analytical detection limits above the Ecological Screening Level (ESL) are likely to exist in the surface soils of the exposure unit. This professional judgment determination is conducted after DOE has concluded with the ERA report that the data set available is suitable for use in evaluating potential risk to ecological receptors.

analyses, temporal and spatial coverage of the samples), and the risk managers from the regulatory agencies agreed with this conclusion. Therefore, the existing data set was the basis of the CRA.

As stated in the ERA volumes, EPA risk assessment guidance (EPA 1997) recommends a tiered approach to ecological risk evaluations, and following the first tier of evaluation "the risk assessor should review the assumptions used (e.g., 100 percent availability) against values reported in the literature (e.g., only up to 60 percent for a particular compound) and consider how the hazard quotients (HQs) would change if more realistic conservative assumptions were used instead." The CRA followed this tiered approach for the ERA and therefore, HQs based on default assumptions and refined assumptions (i.e., using more reasonable estimates of exposure) are presented in the Risk Characterization sections. The HQs based on Tier 1 EPCs represent the most conservative calculations presented in the CRA and likely overestimate risk due to a heavy bias toward samples collected primarily from former source areas with few samples collected in the open spaces between these areas. The second tier of assessment uses an area weighting approach that is expected to more accurately represent the average exposure that a population of receptors may be exposed to throughout the exposure area. The 1997 EPA guidance also states "To ensure that the risk characterization is transparent, clear, and reasonable, information regarding the strengths and limitations of the assessment must be identified and described." Accordingly, each volume clearly presents the uncertainties associated with the risk assessment conclusions to aid risk managers in making decisions about the final remedy for the site. The CAD/ROD concluded that the results of the CRA supported the selection of Alternative 2 as the final remedy for the site in the Proposed Plan.

2. The professional judgment is further used to dismiss

The home range of the representative ecological receptors was

contaminants with limited numbers of detections, stating that the "population-level risk from a few detections in an area as large as the" exposure unit is highly unlikely. However, it is not the size of the exposure unit which should dictate the likelihood of risk but rather the home range of the species under consideration. In addition, limited numbers of detections does not automatically imply that the contaminant is not more widespread; but rather that the sampling program did not sample every square foot of soil to determine the exact extent of the contaminant. For example, if the home range of the species is ¼ acre, and 4 of the 6 detections occurred within the same ¼ acre, then there would likely be an impact on the individuals of the species, potentially enough to present a population-level risk if there are unique habitat conditions within the ¼ acre.

considered in the statistical approach for the exposure point concentrations (EPCs) used in the risk calculations of the ERA. For the non-threatened or endangered species receptors, the exposure area considered was equivalent to the exposure unit (EU) being evaluated. These receptors are representatives of the generic feeding guilds that may be present at the site. While some habitat preference may be noted within each EU, none of the representative receptors, nor the feeding guilds which they represent are strict habitat specialists and can be reasonably assumed to forage throughout the various habitats within each EU. Based on the hot-spot scenario presented in the comments, only the individuals that preferentially used the habitat within the small hot spot would have increased exposure but the level of risk to the population (identified as the assessment endpoints) would not be significantly affected.

The special status species that was included in the CRA, the Preble's meadow jumping mouse (PMJM), does require a specialized habitat. Therefore, soil concentrations were evaluated on a habitat patch basis. The habitat patches were defined based on considerable study of the PMJM populations at the site and are representative of the home range of PMJM. Exposure point concentrations for the PMJM were based on the 95 UCL of the mean for each habitat patch that was evaluated in the Risk Characterization step of the CRA.

As a means of estimating exposure based on the average home range size of individuals within each population of receptors, separate exposure point concentrations were used for small and large home range receptors. Both detected concentrations and non-detected concentrations are included in the EPC calculations. EPA guidance (2002) for calculating EPCs states: "Because of the uncertainty associated with estimating the true average concentration at a site, the 95 percent upper confidence limit (UCL) of the arithmetic mean should be used for this variable." The 95 UCL was used in the ERA for the exposure point concentration for

large home-range receptors (i.e., receptors that are potentially exposed to soil throughout the designated exposure unit [EU]). For small home-range receptors a more conservative estimate of average exposure was used for the risk calculations, the 95 percent UCL of the 90<sup>th</sup> percentile of the EU data set for a particular chemical. This statistic is referred to as the upper tolerance limit (UTL) in the CRA. The UTL is used for small home-range terrestrial receptors and aquatic receptors.

3. It would seem that if DOE wants to know what contaminants are actually in the surface soil, then a sampling program which uses the appropriate analytes and detection limits should be implemented so that it can be assessed if there are concentrations of contaminants that exceed the ESL. The sampling program should include a consideration of home range considerations so that the frequency of the sampling is adequate to assess if there are 'hot spots' which may impact the health of species' populations. In addition, DOE should ensure that the analyte list incorporates the appropriate chemical analysis, i.e., chromium VI versus chromium III, so that the hazard quotient isn't calculated based on an assumed chemical composition of the surface soil as was done for the Industrial Area. This approach should allow DOE to more definitively assess the potential risks to ecological receptors due to exposure from residual contamination at Rocky Flats.

The data used in the CRA were collected under various RCRA/CERCLA investigations and site characterization sampling events. Each of those investigations and sampling events had data quality objectives (DQOs) specific to the particular event (e.g., detection limits, analytical suite, location and number of samples needed to answer the question identified through the DQO process). While not all historical data were specifically collected for the CRA, some more recent data were specifically collected for the CRA and were based on CRA-specific DQOs. The purpose of the Data Adequacy Report (presented in Volume 2, Attachment 3 of the CRA) was to review the data that were available from these various sampling events and determine if the data were adequate to support statistical, exposure, and risk calculations for the CRA. Although there were limitations and uncertainties associated with the data that were reviewed for the Data Adequacy Report, the overall conclusion was that the available data were adequate to conduct the CRA.

4. If DOE does not agree that additional data is needed to more definitively assess the ecological risk present at Rocky Flats before proceeding with the Record of Decision, it would seem that the monitoring to be included in Alternative 2 should be modified to incorporate each of the recommendations above so that additional action(s) can be taken if ecological risk concerns are identified by the empirical data collected rather than the assumptions currently used. In fact, the proposed plan should be revised to include a

DOE is currently working with EPA and CDPHE to determine specific monitoring that will be done to address the uncertainties identified in the CRA for the aquatic exposure units (AEUs). The CAD/ROD identifies the need for additional monitoring, and specific requirements will be included in the Rocky Flats Legacy Management Agreement (RFLMA).

contingency remedy that will address any future ecological concerns based on the ecological monitoring and site characterization to be performed.

5. With regard to the 'Overall Protection of Human Health and the Environment' criteria, the Proposed Plan states that the incremental risk to the Wildlife Refuge Worker falls within the acceptable range of  $1 \times 10^{-6}$  to  $1 \times 10^{-4}$ . However, this incremental risk is based upon the residual contamination currently left on-site and does not reflect the 'baseline' condition of Rocky Flats prior to initiating interim remedy actions. While, the National Contingency Plan (NCP) does indicate that risks within the  $1 \times 10^{-6}$  to  $1 \times 10^{-4}$  range are acceptable; this approach is based on the baseline site conditions which likely exceeded the  $1 \times 10^{-4}$  criterion. When the  $1 \times 10^{-4}$  criterion is exceeded, then the preferred approach for the remedy is to meet the  $1 \times 10^{-6}$  incremental risk concentrations. It would seem that DOE is skirting the NCP expectation for the degree of cleanup at a CERCLA site by using current data to support no additional soil excavation.

The selected remedy takes into account the accelerated actions completed under RFCA. The EPA memorandum entitled "Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions" (EPA 1991) states: "Once a decision has been made to made an action, the Agency has expressed a preference for cleanups achieving the more protective end of the range (i.e., 10<sup>-6</sup>), although waste management strategies achieving reductions in site risks anywhere within the risk range may be deemed acceptable by the EPA risk manager." The decisions related to the need for accelerated actions (i.e., cleanups) were based on comparing site data for individual hazardous substance sites (IHSSs), potential areas of concern (PACs), and under building contamination (UBCs) to soil action levels (ALs) that were agreed to by the RFCA parties. These accelerated actions were conducted and the CRA was then conducted to evaluate risks associated with residual contamination that was not removed through the accelerated actions. The results of the human health risk assessment (HHRA) indicate that residual risks are in the 1 x 10<sup>-6</sup> range (i.e., ranging from 1 x 10<sup>-6</sup> for benzo(a)pyrene in the Upper Walnut Drainage Exposure Unit (EU) and the Industrial Area EU to 6 x 10<sup>-6</sup> for benzo(a)pyrene in the Upper Woman Drainage EU). The selected remedy meets the expectations of the NCP.

6. For all the reasons cited above, the proposed plan for the Rocky Flats site, Alternative 2, does not meet the regulatory requirements for completing the cleanup of the site. Instead, the Record of Decision should be delayed until a sampling program is conducted (as recommended above) that provides additional information to truly calculate the ecological risk present at the site. If the Record of Decision is not delayed, then Alternative 3 should be modified to include a contingency alternative that allows for

The CAD/ROD concludes that, based on the results of the CRA, Alternative 2 meets the regulatory requirements for completing the cleanup of the site. As discussed in the response to Comment 4, DOE is currently working with EPA and CDPHE to determine specific monitoring that will be done to address the uncertainties identified in the CRA for the aquatic exposure units (AEUs). The CAD/ROD identifies the need for additional monitoring and specific requirements will be included in RFLMA.

future cleanup actions, if warranted by the results of an additional ecological investigation (as recommended above).	
Latter from the City and County of Ducomfield dated Contomber	. 12. 2007

## Letter from the City and County of Broomfield dated September 13, 2006

1. We formally request that our comments in Attachment A be dispositioned specifically and individually and <u>not generalized with other public comments</u>.

All comments are being specifically and individually addressed.

2. We also formally request an individual meeting with the RFCA Parties to address our comments prior to the release of the CAD/ROD.

Any meetings that occur as a part of the CERCLA public comment process must occur for the general public's benefit. CERCLA does not allow meetings during the process with individual organizations.

3. It is very difficult to evaluate the Proposed Plan and the preferred alternative without knowing the technical and regulatory details of the post-RFCA. Previously, Broomfield has been asked to evaluate RFCA Party proposals prior to their release to the public. Draft documents have always been released to us prior to public review. We do not understand the need for concealment of this critical document, nor do we understand the change in policy to keep downstream asset holders from participating in drafting language that protects our communities and fiscally preserves our assets. We reserve the right to readdress our comments and concerns identified in this letter once we have an opportunity to evaluate the language in the post-RFCA. It is essential that the post-RFCA document be released to the public for comment with a minimum of 60 days for review. Past practice for formal review of the RFCA documents should justify a formal review of the final post-RFCA or any other post-closure document.

See specific responses to detailed comments below.

4. **1. Involvement with Downstream Asset Holders.**Municipalities impacted by surface water from the RFETS shall be part of the technical process to evaluate and develop monitoring specifications for the post closure monitoring and maintenance

plan. DOE will hold quarterly data exchange meetings to review data, evaluate trending, analyze sampling needs and/or discuss corrective actions with impacted municipalities.

- 5. 2. Long-term Monitoring and Surveillance Plan.
- **a. Groundwater**-Stationary groundwater plumes require continued periodic monitoring to demonstrate that they are remaining stationary and do not pose a risk.
- **b. Surface Water**-the RFCA states *following completion of active remediation, the surface water must be of sufficient quality to support any surface water use classification.* With active remediation completed, we expect DOE to adhere to the underlying stream standards when the temporary modifications expire in 2009.
- **c. Integrated Monitoring Plan Process** This critical process must continue post-closure to periodically reassess site conditions and revise the on-site and off-site monitoring systems accordingly.

See specific responses to detailed comments below.

6. **3. Institutional and Access Controls/Proposed Central Operable Unit Boundary.** The document is silent on physical controls and Institutional Controls for the Points of Compliance. The RFCA parties committed to generate a final map of the site after the completion of the closure project to reflect the remaining residual contamination at the site. These two items need to be addressed. A fence around the Central OU should be an enforceable control, not just a best-management practice.

See specific responses to detailed comments below.

7. **4. Original Landfill and Present Landfill.** Monitoring must continue until there is sufficient data to ensure both groundwater and surface water quality are not impacted from the Original Landfill and to confirm the integrity of the cover. Current seeps that have developed in the cover have the potential to release contaminants directly into Woman Creek. The Present Landfill is currently discharging contaminants into No Name Gulch that exceed the surface water standards. The Present landfill pond should not be in a pass-through mode if the water quality does not

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meet the surface water standards.	
8. <b>5. 991 Area.</b> This area is experiencing severe subsidence.	See specific responses to detailed comments below.
We disagree with the RFCA Parties' position that this unstable area	
is not a CERCLA issue. The area has groundwater wells located in	
it to monitor groundwater plumes. The functional channel is	
experiencing uplifting and we are very concerned with the potential	
for mass loading of sediments into South Walnut Creek.	

- 9. 6. Treatment Units/Remedial Action Objectives.
- a. Treatment Units. We disagree with the statement in the Proposed Plan and the RI/FS stating: Continued operations of these four systems serves to protect surface water quality over short-and-long intermediate-term period by removing contaminant loading to surface water. This protection also serves to meet long-term goals for returning groundwater to its beneficial use of surface water protection. The Solar Pond Treatment Unit and the Present Landfill Treatment Unit as of today do not meet all of the surface water standards. The temporary standard expires in 2009 and we do not have assurances from DOE that the standard will be obtained to minimize the nutrient mass loading to Walnut Creek.
- **b. Remedial Action Objectives.** The remedial action objectives are the foundation of the clean-up actions. We clearly understand if the objectives are not mechanisms such as institutional controls to ensure protection of public health and the environment. The plan lacks the details of the implementation, oversight, enforceability, and reporting of the controls effectiveness and/or deficiencies.

See specific responses to detailed comments below.

10. 7. Administrative Record and Reading Room

a. Administrative Record. The electronic version of the administrative record continues to have access problems. CERCLA, section 113 requires that an *administrative record be established "at or near the facility at issue." The record is to be* 

complied contemporaneously and must be available to the public and include all information considered or relied on in selecting the remedy, including public comments on the proposed plan. We ask that all maps in the record be in color to be of value to our community.

**b. Reading Room.** We request the Reading Room be maintained until we are assured the administrative record is accessible and functioning. Legacy Management has committed to work with us in the decision making process to determine the best location for the administrative record.

# 11. **8.** De-listing the Site, Land Transfer, and Natural Resource Damage Evaluation

**a. De-listing.** The Proposed Plan lacks the details of the process to de-list and certify the site prior to transferring lands to the Department of the Interior.

**b.** Land Transfer. The proposed Plan lacks the details of the land transfer. Our concern with the land transfer is the application of institutional and physical controls in both operable units.

See specific responses to detailed comments below.

12. **9. Public Involvement Plan.** The City and County of Broomfield and Westminster were the only public members to comment on the Public Involvement Plan dated October 2006. We ask the document be revised to include the current notification process, communication process, and continuation of the quarterly data exchange meetings in addition to the LSO briefings.

See specific responses to detailed comments below.

13. **10. Post-Rocky Flats Clean-up Agreement and 5-year Review.** We expect language in the post-RFCA to maintain the current role DOE has with downstream communities. The post-RFCA should as a minimum include the details of the enforceability of the surface water standards, a continuation of the Water Working Group, Attachment 1 list of analytes, ICs, notification, public participation plan, and other key factors related to long-term stewardship.

14.	We request that you disposition this document with us prior	See specific responses to detailed comments below.
to the	release of the final approved CAD/ROD.	
15.	There is not a clearly defined plan and procedure for	See specific responses to detailed comments below.
instit	utional and physical controls.	
16.	The record and data management system has to be in place	See specific responses to detailed comments below.
and f	unctioning prior to delisting.	
17.	Language needs to be added to the plan as a commitment to	See specific responses to detailed comments below.
dowr	stream communities to provide a role for us post-closure	
regar	ding water management.	

1.1.1 For years the City and County of Broomfield and the City of Westminster have had an integral role with the development of monitoring criteria during technical group discussions to implement changes to the monitoring plans at the site. Our role was clearly delineated in the RFCA and detailed in the Integrated Water Management Plan for the Rocky Flats Environmental Technology Site, dated August 1996. The Water Working Group's purpose as stated in the RFCA, Appendix 5, is to develop consensus recommendations to the decision-makers regarding decisions and actions related to water quality at, or downstream of RFETS. These discussions identified the needs and changes in monitoring scope as dictated by changes in the Rocky Flats Environment Technology Site operations and infrastructure. In addition, the working group was tasked to work towards a longterm stewardship monitoring system that would continuously evaluate and support data quality objectives. Revise the Proposed Plan to include language that local municipalities impacted by surface water from the RFETS shall be part of the technical process to evaluate and develop monitoring specifications for the postclosure monitoring and maintenance plan and develop consensus recommendation to the decision-makers post-closure.

DOE appreciates the long history of public involvement at Rocky Flats. Implementing agreed-upon post-closure monitoring and maintenance will be addressed in the RFLMA, which will be subject to public review and comment.

19. 1.1.2 The Proposed Plan refers to the Long-term Surveillance and Maintenance Plan (LTSMP) as the document that identifies the long-term stewardship criteria. We were very disappointed when Legacy Management decided to not adhere to the Public Participation Plan that identified the Interim Long-term Surveillance and Maintenance Plan as a public document to be released for our review and evaluation. To this date we have not received justification from Legacy Management as to why they deviated from their document and the RFCA to include participation of the Water Working Group to maintain and guide a long-term partnership between local governments, DOE, EPA, and CDPHE. Revise the document to state the LTSMP will be reviewed annually with the current partnership between DOE, EPA, CDPHE, and downstream municipal water users.

An LTS&MP has not been issued and is not part of the Proposed Plan. Specifics of post-closure long-term surveillance and maintenance activities will be addressed in the RFLMA. The final IS&MP was released to the public in December, 2005 and is available on the Legacy Management website at <a href="http://www.lm.doe.gov/land/sites/co/rocky\_flats/rocky.htm">http://www.lm.doe.gov/land/sites/co/rocky\_flats/rocky.htm</a>.

20. 1.1.3 The Plan is silent on the enforceability of the Points of Compliance at Indiana, the groundwater wells at Indiana, and the ability for the regulators to have an oversight role for the monitoring stations outside of the DOE retained lands. When lands are transferred from DOE to the Service, will the regulators have the ability to enforce surface water quality and groundwater quality in areas outside of their responsibility that are located within the outer peripheral unit?

The CAD/ROD mandates that DOE retain POCs in surface water at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed. The Refuge Act provides for continuing regulatory authority in the DOE retained lands and the refuge lands. Enforceability will be included in the RFLMA.

21. 1.2.1 The City and County of Broomfield and Westminster for years have teamed with the RFCA Parties to exchange data, evaluate trending, and develop data quality objectives. These crucial decisions and recommendation were developed within the framework of the Water Working Group. In addition, monitoring data generated by all involved parties were exchanged to evaluate the generated data and monitoring systems. It is very important to evaluate trends in data to determine the optimum locations for the

The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public. An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD states that the environmental monitoring, as well as the monitoring that will be

monitoring system post-closure. The City and County of Broomfield will continue to generate surface water data post-closure and evaluate the impacts to Walnut Creek and Big Dry Creek. The City of Westminster and Northglenn will also continue to evaluate the impacts to Woman Creek and Big Dry Creek. Westminster reserves the right to monitor surface water post-closure at the and at the site boundary.

included in RFLMA, is adequate to ensure continuing protectiveness of the remedy. Therefore, the CAD/ROD requires no additional sampling.

22. 1.2.2 We understand there may not be surface water discharges from the terminal ponds for several years, but quarterly monitoring will continue at the site and it will need to be reviewed and discussed. The Proposed Plan refers to the LTSMP. The LTSMP clearly excludes the continuation of the current process to discuss technical issues associated with the monitoring and surveillance systems at the site. Revise the Proposed Plan to specify quarterly data exchange meetings will be held with DOE, CDPHE, downstream municipalities, and EPA if they have an available representative, to review data, evaluate trending, analyze sampling needs, and/or discuss corrective actions. We expect the quarterly data exchange meetings to be in addition to any briefing by Legacy Management presented to the Local Stakeholder Organization.

The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public. An LTS&MP has not been issued and is not part of the Proposed Plan.

23. 1.2.3 We remind Legacy Management of their August 11, 2004 commitment made to downstream municipalities to continue the quarterly data exchange meetings with our communities for a minimum of two years. Based on this commitment, the language in the Plan should reflect, as a minimum, the commitment to downstream municipalities.

DOE intends to continue to interact with all interested parties and stakeholders. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public. An LTS&MP has not been issued and is not part of the Proposed Plan.

24. 1.2.4 On September 11, 2006, Mike Owen committed to open communication with local governments. This commitment is a confirmation by Legacy Management to continue the much-

DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The CAD/ROD requires that DOE prepare an annual report

needed quarterly data exchange meetings with downstream communities to continue to evaluate an integral monitoring plan.

discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

25. 1.3.1 Our short-term goals during the Quarterly Data Exchange meetings were to ensure a safe, timely cleanup while working toward protecting surface water quality. Our long-term goals were to have a detailed long-term stewardship plan to protect surface water quality that impacts us as downstream communities. The open communication process and the notification process also served to strengthen our ability to resolve issues. The document refers to the Public Involvement Plan and this involvement plan clearly does not maintain the current open communication and notification process. Rather than remaining silent on direct communication and notification with our communities, we ask the document be revised to incorporate the previous notification and communication process as identified in our letter to Audrey Berry, dated September 16, 2005.

DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

26. 1.3.2 The current communication process with downstream communities should not be intended to replace the public process with the Rocky Flats Stewardship Council (RFSC), but instead be in addition to the public involvement plan identified by Legacy Management.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

27. 1.3.3 The City and County of Broomfield and the City of Westminster have had several meetings with the RFCA Parties to address the importance of maintaining the same communication process and notification process with our municipalities. We have drafted several letters addressing the specifics of long-term

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the

stewardship and our role to fulfill our responsibilities to our citizens and businesses. Please refer to our most recent letters to Mike Owen dated December 6, 2005, letter to Audrey Berry dated September 16, 2005, and letter to John Rampe dated January 2004. In addition, we have been the only two communities that have individually commented on all the documents the RFCA Parties have released during the cleanup project. We have invested hundreds of hours evaluating remedy proposals and strived to bring forward resolutions to meet both our needs and Doe's needs. These letters reflect the importance of this project to our communities. Revise the Proposed Plan to reflect our role post-closure to ensure our future role is codified in Legacy Management post-closure documents.

CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

- 28. 2.1.1 Broomfield understands the specific groundwater plumes that were evaluated in the approved RI/FS and the basis for the potential pathway analysis for contaminants to impact human health and the environment. The items evaluated were:
  - Five upper hydrostratigraphic unit groundwater areas where contaminated groundwater may impact surface water;
  - Upper hydrostratigraphic unit groundwater sampling locations where groundwater contamination exceeds maximum contaminant levels; and
  - Groundwater sampling locations where exceedances of volatilization PRGs in groundwater indicate a potential indoor air risk

What the document is lacking is the process to evaluate stationary groundwater plumes and their potential risk long into the future in the event they migrate or a new pathway is created. We understand the stationary plumes do not pose a risk based on current data, yet the RI/FS and the Proposed Plan do not take consider the need to continue monitoring stationary plumes post-closure in the event hydrological conditions change. The RI/FS states these plumes do not require further studies to evaluate risk to human health and the

The RI/FS evaluated all groundwater constituents to determine analytes of interest (AOIs). The AOIs that formed contiguous, mapable plumes were further evaluated to determine their potential to impact surface water. The potential impacts of groundwater discharge to surface water were evaluated at the Area of Concern (AOC) and Sentinel wells which were selected by the Water Working Group regardless of whether the groundwater plumes are retreating, migrating or stationary (i.e., at steady state). The evaluation results indicated that AOIs in five groundwater areas have the potential to impact surface water based on results at the AOC and Sentinel wells and/or contaminant transport model predictions.

There is a process identified to evaluate steady-state groundwater plumes in the Fiscal Year 2005 Integrated Monitoring Plan, Revision 1, dated September 2005 (IMP), which identifies AOC, Sentinel, and Evaluation wells. These wells are located so that they will detect potential changes in the groundwater plume configurations at the site whether they are currently considered to be in steady state or migrating downgradient. If groundwater monitoring results show statistically increasing trends at the AOC,

environment and we agree with this statement based on current data. Revise the document to state in the event stationary plumes begin to migrate, a risk evaluation will be performed for the contaminant or contaminants of concern. Revise the document to also include the process to evaluate the risk. Include impacted communities in the process to determine the monitoring needs post-closure.

Sentinel, or Evaluation, the IMP requires more frequent monitoring and evaluations for action, if deemed necessary. Since the water quality standards used for evaluation are deemed to be protective of human health and the environment and statistically significant impacts to water quality will be evaluated per the IMP, it is not necessary to revise the document to include a risk evaluation. Post-closure monitoring, identified in the IMP, will be implemented through the RFLMA, which will be offered for public review and comment.

## 29. 2.1.2 Revise the documents to reflect language in the RFCA Attachment 5, C.2 stating:

Groundwater plumes that can be shown to be stationary and do not therefore present a risk to surface water, regardless of their contaminant levels, will not require remediation or management. They will require continued monitoring to demonstrate that they remain stationary.

Based on the changes to the topography and potential hydrology at the site, Broomfield and Westminster believe there needs to be sufficient monitoring to determine if the groundwater plumes remain stationary and do not pose a risk. The RI/FS does not address future evaluations for all identified groundwater plumes. The process outlined within the RI/FS does not evaluate impacts to the creeks holistically.

The IMP identifies sufficient monitoring for all groundwater plumes (whether they are in steady-state or migrating) and contains a systematic process for evaluations and potential actions if statistically increasing contaminant trends are observed. Where possible, the future impact of groundwater plumes on surface water were evaluated in the RI/FS using contaminant fate and transport modeling. Modeling was performed for the significant volatile organic compound plumes to predict their future impact on surface water quality. Contaminant fate and transport modeling was not conducted for the metal AOIs because the metal plumes are limited in areal extent and do not currently pose a threat to surface water. Uranium was also not modeled because the primary uranium plume at the site, which occurs in the area of the Solar Evaporation Ponds, is already entering North Walnut Creek and the water quality impacts are well known. A groundwater interception and treatment system is already installed in this area. Post-closure surveillance and maintenance activities will be addressed in the RFLMA, which will be subject to public review and comment.

30. 2.1.3 Revise the document to state all exceedances of groundwater action levels shall be reported to downstream communities once DOE becomes aware of the data. In addition, the data shall be reported quarterly and summarized annually to all parties, including downstream municipalities. Revise the document to add "downstream communities" to the notification and

The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

communication process identified in the Plan.

31. 2.1.4 All groundwater plumes that exceed action levels must continue to be monitored until the need for institutional controls is mitigated. Revise the document to include the process on implementation of institutional controls. Define how institutional controls will be implemented, how they will be evaluated, how often they will be evaluated, and by whom. Any information associated with institutional controls should also be relayed to the public and downstream communities. Once again, with ICs in the outer peripheral unit, we are not clear on the regulatory process in this area.

The CAD/ROD states that institutional controls will be maintained until the concentrations of hazardous substances in soil and groundwater are at levels so as to allow for unrestricted use and unlimited exposure, and/or until such time as engineered components of the remedy are no longer needed. DOE will be responsible for maintaining institutional controls. DOE will inspect the site relative to institutional controls no less than annually, and the CAD/ROD contains specific timeframes for addressing and reporting activities that are inconsistent with the objectives of the institutional controls. Institutional controls will be addressed in the regular reporting that will be made available to the public and will be evaluated in CERCLA periodic reviews. Conditions in the Peripheral OU are such that they allow for unrestricted use and unlimited exposure. Therefore, no institutional controls are needed for the Peripheral OU.

32. 2.1.5 Any revisions or justifications to change the standard/action levels for groundwater shall be based on the surface water use classifications and not jeopardize surface water quality. Impacted municipalities should be part of the decision-making process to reevaluate any proposed changes. Per RFCA, the temporary modifications were developed *together with other stakeholders* (*i.e.*, *the local municipalities that are impacted by surface water from the RFETS*). Without knowing the specific language in the post-closure document, we ask language be incorporated and codified in Proposed Plan to ensure municipalities are included with any decision made at the Rocky Flats site that may impact surface water. Any modification or changes to the stream standards shall include downstream municipalities.

All rulemakings held by the Colorado Water Quality Control Commission related to use classifications, standards, or temporary modifications in Big Dry Creek have included and in the future are expected to include downstream communities. The rulemaking process allows for participation in the rulemaking as parties or as non-parties, and for the submission of written or oral testimony.

33. 2.1.6 Broomfield and Westminster are concerned the Proposed Plan does not address any institutional controls to prevent siting groundwater wells in the refuge to be used for irrigation or

The Peripheral OU will be transferred from DOE to USFWS, and will become the Rocky Flats National Wildlife Refuge. The RI found that conditions in the Peripheral OU, including groundwater

for other uses. The Proposed Plan states: *the construction or operation of groundwater wells is prohibited; except for remedy related purposes.* Revise the document to clarify the process to site a groundwater well in the refuge in the event a well is needed to evaluate the potential migration of a groundwater plume.

quality, were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Plans for use of groundwater by USFWS in the Refuge are beyond the scope of this CAD/ROD; however, information on Refuge management may be found in the CCP for the Rocky Flats National Wildlife Refuge prepared by USFWS.

The Refuge Act allows siting monitoring wells in the refuge and provides for DOE's access. DOE will be required to maintain and protect any wells to ensure that they continue to function as designed. Requirements for monitoring wells will be included in the RFLMA.

34. 2.1.7 Figure 3 of the Proposed Plan identifies the Rocky Flats Operable Units, i.e., DOE-retained lands and the refuge area. Figure 2 of the Proposed Plan identifies the groundwater and surface water monitoring locations. Revise the document to include an overlaid map of the two above-mentioned maps to reflect the location of the monitoring stations in relation to the boundary.

Figure 10.1 of the RI/FS shows the relationship of the Central Operable Unit (OU) boundary relative to the IMP groundwater monitoring wells (AOC and sentinel wells) and surface water monitoring locations (Point of Compliance [POC], Point of Evaluation [POE], and Point of Measurement [POM]). All of the AOC, Sentinel, and Evaluation wells are located in the Central OU. The POCs located downgradient of terminal ponds (GS11, GS08, and GS31) are located adjacent to the eastern (downstream) edge of the Central OU. The background surface water monitoring station (GS05), the POCs at Indiana Street (GS01 and GS03), and the boundary wells (41691 and 10394) are located in the Peripheral OU.

35. 2.1.8 We are very concerned the document does not address if or how institutional controls would apply to boundary wells. Revise the document to state ICs will apply to the boundary wells. Revise Figure 3 to include a delineation of the groundwater boundary wells. The Plan should also include a statement that the land/area the wells are located in will be retained by DOE.

Boundary wells are not required by the CAD/ROD. Although boundary wells are not located within the DOE-retained lands, the Refuge Act provides for DOE's access to them, and DOE will be required to maintain and protect these wells to ensure that they continue to function as designed. Requirements for monitoring at the boundary wells will be included in the RFLMA.

36. 2.1.9 Revise the document to state how the groundwater wells will be secured and identified. We expect to have a fence

AOC, sentinel, and evaluation wells are located within the Central OU and are within the boundaries of the DOE-retained lands.

around the perimeter of the groundwater wells that are located outside of the DOE-retained lands. These wells have to be clearly marked and labeled to prevent public access and intrusion. As a minimum, a fence should be placed 10 feet out from the monitoring well. In addition, the fence should be legal control fence.

Monitoring wells that are outside the DOE-retained lands will be protected and maintained, which will be described in more detail in the RFLMA.

37. 2.1.10 Telemetry is not a sufficient tool to be used as an indicator that a well has been vandalized. Freezing conditions could impact the telemetry system. The telemetry could serve as a layering method to protect the groundwater wells in the event other controls fail to protect the monitoring systems.

DOE agrees that telemetry is not a sufficient tool to assess whether a well has been vandalized, or to indicate other types of failure at a well. There is not currently, nor has there historically been telemetry at any of the groundwater wells. Visual of the wells are conducted at least semi-annually during sampling events. DOE will continue to protect the functionality of the wells included in the LM post-closure monitoring system.

38. 2.1.11 The fence for the boundary wells should be identified as a legal control to protect the monitoring system for the remedy. Layering is of utmost importance in the event one control fails. The need to protect these wells is founded on the importance to gather groundwater data to evaluate the remedy.

DOE will be required to maintain and protect these locations to ensure that they continue to function as designed. Specific groundwater monitoring requirements, including any boundary wells, will be addressed in the RFLMA.

39. 2.1.12 The document refers to the Long-term Surveillance and Monitoring Plan. Revise the document to state all groundwater monitoring data and any changes in hydrologic conditions will be reported quarterly and summarized annually to all parties and impacted municipalities. Any exceedances of groundwater action levels will be reported to all parties and impacted municipalities concurrently. Once changes or physical conditions exist that could impact surface water quality, downstream municipalities should be notified via telephone or fax.

An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication.

40. 2.1.13 The RI/FS does not address the evaluation of groundwater that discharges directly to surface water as baseflow, specifically groundwater entering North Walnut Creek from the discharge gallery. The document is silent on direct impacts to the creeks and only addresses an evaluation of groundwater to surface

The potential impacts of contaminated groundwater on surface water quality were evaluated in the RI/FS and considered in the Proposed Plan. The effectiveness of the groundwater system is evaluated through discharge sampling and during periodic monitoring, inspections and maintenance activities. The remedy

water at the Points-of-Compliance. To measure impacts after dilution occurs at the Points-of-Compliance (POCs) may not be an accurate evaluation of direct impacts to the streams and human health and the environment. We understand the remedial action objectives are used to develop and evaluate remedial alternatives. However, we do not agree it is appropriate to use the creeks and ponds as a method to dilute/treat surface water. It may appear inaccurate to measure the effectiveness of the treatment units if the risks are evaluated at the terminal ponds and the POCs rather than measuring the water quality as it enters the creek or ponds.

does not assume that the creeks or ponds treat or dilute surface water.

41. 2.2.1 Temporary modifications were developed together with local municipalities that are impacted by surface water from the RFETS. Broomfield reminds DOE that RFCA states *following completion of active remediation, the surface water must be of sufficient quality to support any surface water use classification in both Segments 4a/4b and 5.* Revise the Proposed Plan to state any temporary modifications will revert to the stream standards once the final remedy has been completed. We expect DOE to adhere to the stream standards once the temporary standards expire in 2009. Our intent was to allow less stringent standards during the cleanup. DOE should be adhering to the stream standards now that the remedy has been completed. Revise the Proposed Plan to include language identifying the procedure and schedule DOE has in place to adhere to the surface water standards by 2009.

The remedy for groundwater is not complete. It will be complete when all three of the Groundwater RAOs and the Surface Water RAO are met. The remedy – in the form of groundwater treatment systems and continued monitoring – has been put in place. DOE will continue to monitor groundwater and surface water with the goal of achieving the underlying surface water standards when the temporary modifications expire in 2009. More information on the temporary modifications and completion of the remedy at Rocky Flats may be found in the docket of the 2004 Water Quality Control Commission's Rulemaking on Regulation No. 38, to which the Cities of Broomfield and Westminster were parties.

42. 2.2.2 Revise the document to state how the institutional controls will apply to the surface water monitoring stations inside and outside of the DOE retained lands.

DOE will be required to maintain and protect these locations to ensure that they continue to function as designed. Per the Refuge Act, DOE may access any areas, whether in the Central OU or Peripheral OU, that are required for monitoring or remedy purposes.

43. 2.2.3 Revise Figure 3 to include a delineation of the surface water monitoring stations. The Plan should also include a statement that the land/area the surface water stations are located in will be

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DOE is developing a map or maps to address your comment. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed. Per the Refuge Act,

retained by DOE.

DOE may access any areas, whether in the Central OU or Peripheral OU, required for monitoring or remedy purposes.

44. 2.2.4 Define how the institutional controls will be implemented for the use of surface water, how they will be evaluated, how often they will be evaluated, and by whom. Any information associated with institutional controls should also be relayed to the public and downstream communities. We are specifically interested in the application of ICs at the POCs at the boundary.

Signage, federal ownership, and an environmental covenant issued to the State of Colorado are the specific physical and institutional controls to be used to ensure the protection of surface water from unauthorized uses. Implementation of the physical and institutional controls will be inspected periodically by DOE, corrected or repaired if required, and reported in an annual report. These control, inspection, and reporting actions are listed in the Proposed Plan for Alternative 2, the Preferred Alternative. Approval of the CAD/ROD will establish these proposed actions as binding regulatory requirements for DOE. More detailed information describing how DOE will meet the requirements of the CAD/ROD will be written in the RFLMA. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

45. 2.2.5 Broomfield is concerned the Proposed Plan does not address any institutional controls to prevent the use of surface water for drinking or irrigation in the refuge area. The Proposed Plan states: *surface water above the terminal ponds may not be use for drinking water or agricultural purposes*. Surface water is discharged into Walnut Creek and Woman Creek from the DOE retained land and eventually flows downstream to the POCs. It does not seem logical to enforce ICs in an area with no public access yet have no ICs where the public will have access to the drainages and monitoring stations outside of the DOE retained lands. The drainages and creeks could be an inviting water hole for horses when the refuge allows horseback riding on the south side of the site. We understand there will be designated trails for the horses, but there needs to be a legal control to prohibit the use of surface water flowing to the POCs. We strongly support the refuge

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Future incidental use of surface water in the refuge area as you described similarly poses no threat and no controls are required. The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. The CAD/ROD requires DOE to maintain and protect these locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU.

and its future activities, but we have reservations about the lack of application of the identified controls in the Proposed Plan. Revise the document to state the surface water monitoring stations outside of the DOE-retained lands will be managed consistently with the surface water monitoring stations within the DOE-retained lands.

46. 2.2.6 Revise the document to identify how the institutional controls will be enforced and the schedule to implement corrective actions in the event a control fails.

The suggested revisions are inappropriate for the Proposed Plan, which develops broad alternatives for remedial action. Approval of the CAD/ROD will select the alternative and establish the requirements to implement that alternative. More detailed information describing how DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the RFLMA. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

47. 2.2.7 Revise the document to state a legally mandated fence will be constructed around the perimeter of the surface water monitoring stations outside of the DOE-retained lands. These surface water monitoring stations should be clearly marked and labeled to prevent public access and intrusion. As a minimum, a fence should be placed 10 feet out from the monitoring stations.

The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU.

48. 2.2.8 The fence for the surface water monitoring stations outside of the DOE-retained lands and the fence around the DOE retained lands should be identified as a legal control in the Proposed Plan to protect the monitoring system for the remedy. Layering is of utmost importance in the event one control fails. The need to protect these surface water monitoring stations is founded on the importance to gather surface water data to evaluate the remedy and protect surface water quality downstream of Rocky Flats.

DOE will be required to maintain and protect surface water monitoring locations outside of the DOE-retained lands to ensure that they continue to function as designed. The concept of layered controls is embodied within the selected remedy for the Central OU, however not in the form of layered fences. The layered controls include a signs as a required physical control, ongoing ownership by DOE to prevent digging, water usage, and other prohibited activities, routine presence and observation by DOE and contractor staff, and an environmental covenant with the State of Colorado restricting use of the Central OU in perpetuity.

49. 2.2.9 The document refers to the Long-term Surveillance and Monitoring Plan. Revise the document to state all surface water monitoring data will be reported quarterly and summarized annually to all parties and impacted municipalities. Any changes in concentrations or exceedances of surface water action levels and/or standards should be relayed concurrently to impacted municipalities and the regulators. Once changes or physical conditions exist that could impact surface water quality DOE should notify downstream municipalities concurrently with the regulators.

An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

2.2.10 The Long-term Surveillance and Monitoring Plan is referred to in the Proposed Plan as the document that identifies the monitoring and surveillance post-closure. As written in the LTS&M Plan, surface water quality in the terminal ponds will be measured only when there is a pond discharge. As identified in the LTS&M Plan, the ponds will be discharged when they are at 40% capacity. Based on modeling to predict the amount of surface water flowing at the site post-closure, there will be far less water entering the ponds. With the new configuration of the site, it could be years before the ponds would require a discharge. To effectively evaluate the remedy, the water quality in the terminal ponds or an identified location at the site should be performed annually as a minimum. Revise the document to state as a minimum the terminal ponds on Walnut Creek will be sampling annually for analytes identified in Attachment 5 of RFCA. Woman Creek is unique in that not all the runoff of surface water is captured in C-2, therefore language should be added to the Plan for Legacy Management to work with Westminster and the Woman Creek Reservoir Authority to identify a location that accurately reflects the effectiveness of the remedy on the south side of the site.

An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD. Regarding the commenter's request for a new monitoring location on Woman Creek, the RFCA parties worked with the communities in establishing the current monitoring locations. A primary purpose of the agreed upon monitoring network was to assure adequate information would be collected for remedy evaluation. No new location will be sited at this time. The entire monitoring system is subject to ongoing review so that locations and analytes can be dropped or added as conditions warrant.

51. 2.2.11 The City and County of Broomfield and the City of Westminster understand the potential for the ponds to require

The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA

additional discharges during wet seasons and wet years. Revise the Proposed Plan to include the following language:

The Surface Water and Groundwater Working Group will be tasked to develop an Integrated Water Management Plan to develop a consensus recommendation to the decision-makers regarding decisions and actions related to water quality at, or downstream of RFETS. The group will identify actions necessary to protect water quality and the watershed and recommend programmatic activities to effectively manage water resources. The group will provide a comprehensive management tool to identify the actions to take regarding pond management. This tool will maintain and guide a long-term partnership between local governments, DOE, EPA, and CDPHE. The goal of the group will be to provide a comprehensive management tool to implement DOE's long-term commitment for protecting water and related ecological resources.

It is imperative to include this language within the body of the Proposed Plan and the CAD/ROD to ensure a comprehensive water management plan is developed based on diminished flows, protection of ecological resources, and application of institutional controls necessary to protect water for all uses.

are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD. Therefore, a Surface Water and Groundwater Working Group and an Integrated Water Management Plan are not required.

52. 2.2.12 Revise the document to include language the City and County of Broomfield will sample surface water quality during a discharge into Walnut Creek and we reserve the right to sample surface water quality on an annual basis to determine surface water quality within the terminal ponds on Walnut Creek.

The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD.

53. 2.2.13 Revise the document to include language the City of Westminster and/or the Woman Creek Authority reserves the right to sample surface water quality on an annual basis to determine surface water quality within the C-2 terminal pond or specified location on Woman Creek.

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The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a

requirement of the CAD/ROD.

54. 2.2.14 Broomfield and Westminster have stated the need for a comprehensive long-stewardship plan since October 4, 1996. We are very disappointed that throughout the cleanup process the details of the long-term stewardship plan were deferred to numerous unwritten documents. We believed the Proposed Plan would be the critical document that would include the details and implementation of a long-term stewardship plan. The plan as a minimum was to identify the implementation and enforceability of institutional controls, have a clearly defined monitoring and surveillance plan that was developed with downstream municipalities input, include a statement identifying our role post-closure, and include a risk assessment based on effective engineered controls that were evaluated at the point effluent enters water of the state.

The purpose of the Proposed Plan was to identify DOE's preferred final remedy for RFETS and to provide the rationale for the preference. The preferred remedy for Alternative 2 includes clearly defined monitoring and surveillance requirements. These requirements are based on specific monitoring and O&M requirements for the 5 ongoing actions (that is, the Original and Present Landfills and the three groundwater treatment systems) as well as additional targeted ecological sampling based on results of the ERA and surface and groundwater monitoring as described in the FY2005 IMP, dated September 8, 2005. The FY2005 IMP was developed with downstream municipalities input.

Institutional controls that are part of the preferred remedy are described in the Proposed Plan and are included in the CAD/ROD. The CAD/ROD identifies the RFLMA as the enforceable document for the institutional controls.

55. 2.2.15 We are also very disappointed that at the Public Hearing held on August 31, 2006 we were informed we could not address long-term stewardship issues. The statement in itself was in contradiction to the Proposed Plan that offered institutional and physical controls as two of the three identified alternatives. Without knowing the specifics of the final controls associated with the alternatives, we have reservations about the long-term effectiveness and enforceability of a long-term stewardship plan. If our comments are not considered, we may have to support Alternative 3 rather than Alternative 2 once the final CAD/ROD is released.

The Public Hearing conducted on August 31, 2006 was to gather comment from the public on the Proposed Plan. It was a formal hearing conducted in accordance with regulatory guidance, including use of a facilitator and court reporter to ensure verbatim transcription of oral public comments. Both the CAD/ROD and the Proposed Plan note that the CAD/ROD will be implemented through an enforceable agreement among DOE, EPA and CDPHE, known as RFLMA. RFLMA will contain additional details regarding long-term activities at Rocky Flats, and will be made available for formal public comment.

56. 2.2.16 The effectiveness of a long-term stewardship plan that protects surface water quality can only be strengthened through open communication among all affected parties. We have not been asked to participate in the drafting of the post-closure document to

DOE, EPA and CDPHE agree that open communications among all affected parties is important to the success of long-term activities at Rocky Flats. To that end, the communities and other stakeholders have been extensively involved in the remedy evaluation and

ensure an effective plan is drafted before it is finalized. Our participation would only serve to strengthen the success of a stewardship plan that our communities will accept and support.

selection process. As examples, the draft RI/FS report was released for public information in October 2005, and the agencies held several informational meetings with community representatives to discuss the report. Three informational meetings were held on the Proposed Plan itself, one prior to and two during the public comment period, in advance of the public hearing. Beyond that, DOE, EPA and CDPHE have engaged in extensive public dialogues over the years on long-term stewardship issues through a number of venues including the Stewardship Working Group, which was a joint effort between the Rocky Flats Citizens Advisory Board and the Rocky Flats Coalition of Local Governments, of which both Broomfield and Westminster were members. The agencies shared drafts of a long-term management agreement, the precursor of RFLMA, for Rocky Flats at these meetings for public information and input.

57. 2.2.17 If the regulators do not have enforceability responsibilities in the refuge area to ensure surface water quality, the City and County of Broomfield, city and Westminster, City of Northglenn, and the Woman Creek Reservoir Authority may seek to have the POCs, groundwater wells, and drainage measuring stations placed at the boundary between the DOE retained lands and the refuge.

The regulators have enforcement responsibilities at the surface water points of compliance at Indiana Street to ensure surface water quality. Surface water POCs at Indiana Street are part of the final remedy as documented in the CAD/ROD. The remaining surface water POCs are all within the Central OU boundary and are part of the final remedy as documented in the CAD/ROD. CAD/ROD requirements are implemented and enforced in the RFLMA.

Contaminated groundwater is located within the Central OU boundary. Impacts or changes to water quality will be identified through the water monitoring network described in the FY2005 IMP. All AOC and Sentinel wells identified in the FY2005 IMP are located within the Central OU boundary. AOC wells are wells that are within a drainage and down-gradient of a contaminant plume or group of contaminant plumes. These wells are monitored to determine whether the plume(s) may be discharging to surface water. Sentinel wells are typically located near down-gradient contaminant plume edges, in drainages, and down-gradient of

	existing groundwater treatment systems. These wells are monitored to identify changes in groundwater quality. AOC and Sentinel wells are part of the final remedy described in the CAD/ROD. The CAD/ROD requirements are implemented and enforced through the RFLMA. Consequently, there is no need or regulatory requirement to have POCs, groundwater wells, and drainage measuring stations placed at the boundary between the DOE retained lands and the refuge.
58. 2.3.1 Broomfield and Westminster agree with the risk assessment for air contamination. Revise Figure 2 to include the location of the three current air monitoring stations.	Analysis of filters from the three current air monitoring stations will cease with this October's filter collection. DOE will continue to run the air monitors and collect the filters on a monthly basis and store them for future analysis in the event of significant erosion or slumping in areas of surface and/or subsurface residual radiological contamination.
59. 2.3.2 We understand the application of air modeling can be utilized in place of actual air monitoring. We ask to be apprised of DOE actions pertaining to the air stations. Communication with Legacy Management is vital if our staff and Council representatives are expected to effectively convey our assurances of the monitoring program to our citizens.	DOE will notify stakeholders and the public of actions pertaining to air monitoring.
60. 2.3.3 Any changes to the air monitoring criteria shall be made via the IMP process with input from our communities.	Air monitoring is not a regulatory requirement at this point or in the future.
61. 2.4.1 We appreciate the efforts the RFCA Parties made to evaluate the ecological risks in the RI/FS. The evaluation was very comprehensive.	Thank you for your comment.
62. 2.4.2 The <i>Rocky Flats, Colorado, Site Vegetation Management Plan,</i> dated May 2006 was revised without our review or knowledge. The recent changes to the Vegetation Management Plan should have been discussed during the IMP ecological meetings. The City and County of Broomfield and	The CAD/ROD does not contain specific requirements for vegetation management.

Westminster are very concerned we continually express our desires and justifications to maintain the current IMP process, communication process, and notification process.

63. 2.4.2.1 Previous protocols with DOE and our governments were for DOE to notify us when chemicals were applied at the site for target pest control. This information is very valuable to us. The site had several applications this year, and we were not notified until well after the application at a Quarterly Data Exchange meeting. Please ensure the Proposed Plan has language to include us with any revisions to the Site Vegetation Plan. This Vegetation Plan should be evaluated annually and we expect to be part of the evaluation process.

The CAD/ROD does not contain specific requirements for vegetation management.

64. 2.4.2.2 The vegetation management plan is not clear if the plan is specific to the DOE-retained lands. This issue is crucial to the long-term stewardship application at the site.

The CAD/ROD does not contain specific requirements for vegetation management.

2.4.2.3 The Vegetation Plan identifies prescribed burns and notes they have been on hold until the USFWS develops and implants their management plans for the refuge. Any prescribed burn will require extensive public input, and we ask to be informed if and when DOE begins to develop a plan for prescribed burns. We are concerned with the statement in the Vegetation Plan stating: Currently, grazing is not permitted at the Site and prescribed burns have been suspended until USFWS takes over management of the Rocky Flats National Wildlife Refuge. Clarify if this means prescribed burns will occur across the entire site. Will grazing be allowed within the DOE retained lands? If so, this raises concerns with erosion problems with the DOE retained lands. We ask these questions because they may have long-term stewardship implications. When the CCP was drafter, the City and County of Broomfield and the City of Westminster clearly understood there delineation between the roles of DOE and the Service. Recent documents are vague as to what document falls under the

The CAD/ROD does not contain specific requirements for vegetation management. Information on U.S. Fish & Wildlife Service refuge management is available in the Comprehensive Conservation Plan for the Rocky Flats National Wildlife Refuge.

jurisdiction of DOE or the Service. The Plan does not address how	
the lands will be managed, nor do they address how controls will	
be enforced and by whom.	

66. 2.4.3 The Preble's Meadow Jumping Mouse (PMJM) is a listed as a threatened species under the Endangered Species Act. The Vegetation Plan identifies controls to allow up to three acres of weed control within current PMJM areas within Rock Creek Reserve on an annual basis. Clarify how and if other controls for other areas at the site that are PMJM areas will be identified and managed.

The CAD/ROD does not contain specific requirements for vegetation management or PMJM habitat management.

67. 2.4.4 In the event the Solar Pond Treatment Unit has to be relocated to PMJM habitat, we ask to be involved in the evaluation process based on the impacts to Walnut Creek and Big Dry Creek.

Any proposed relocation of the Solar Pond Treatment Unit would trigger the consultative process under provisions of the RFLMA. The RFLMA will be offered for public review and comment.

68. 2.4.5 As the mouse controversy continues, we ask to be apprised on any potential impacts to the site. We also request that when a final decision is made pertaining to the mouse, the Water Working Group meet to evaluate the water and ecological impacts prior to revising the Site Vegetation Plan and the ecological section of the IMP.

The CAD/ROD does not contain specific requirements for vegetation management or PMJM habitat management.

69. 2.5.1 To assess the direction and magnitude of contaminant movement and groundwater migration, it is essential to evaluate data as generated to compare it against predetermined outcomes and identify whether reported concentrations are routine or indicative of worsening conditions. When our communities were first impacted by contamination leaving the site boundary, we were compelled to initiate a Water Working Group to develop a common vision with DOE to protect water quality. As the process evolved, there was a need to evaluate revisions to the site-wide water management plan and ecological impacts on an annual basis. The Integrated Monitoring Plan (IMP) served to:

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The CAD/ROD contains monitoring and maintenance requirements that will be implemented by the RFLMA and includes the majority of attributes from the closure monitoring system as recommended by the IMP Water Working Group and contained in the 2005 and 2006 IMP. The monitoring data will continue to be provided to the public, cities and the LSO via the LM quarterly and annual reports. In addition, LM will present these data to the LSO, its constituents and the public for review, evaluation, discussion and comment. DOE does not anticipate any changes to the monitoring system in the near future.

- Develop data quality objectives with a goal to ensure compliance for surface water,
- Developed objectives and monitored pond discharges,
- Developed objectives and monitored discharges for the terminal detention pond discharges,
- Developed objectives and monitored off-site discharges for community water supply management,
- Developed objectives and monitored groundwater interactions,
- Developed objectives and monitored special project activities such as D&D of buildings including close-in air monitoring and placement of groundwater wells to track migration or impacts of groundwater plumes near the buildings.
- Developed objectives and monitored discharges from treatment units,
- Developed objectives and monitored the Present Landfill and Original Landfill,
- Developed objectives and monitored air,
- Developed ecological objectives and monitored flora and fauna, and
- Reviewed National Permit Discharge Elimination System (NPDES) proposed revisions.

70. 2.5.2 It is imperative to maintain the IMP process to reassess site conditions and revise the monitoring systems to integrate on-site monitoring and off-site monitoring with downstream municipalities. Revise the language in the Proposed Plan to ensure the process continues post-closure. These meetings are highly technical and it is imperative to allow for discussion and exchange of data among those that generate data. Our goal is to evaluate the remedy. The data will verify if the remedy, which includes treatment, covers, caps, and removal, reduces toxicity and

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

mobility post-closure.

71. 2.5.3 The Proposed Plan is silent on continuation of the IMP process and we are very concerned Legacy Management does not intend to continue this process with downstream municipalities. With the recent revision to the Vegetation Management Plan of May 2006 and associated review of the IMP ecological section, DOE's actions potentially reflect their intent to preclude us from a process that for years served to build trust and confidence with our local communities and the regulatory agencies. At the Public Hearing held on August 31, 2006, DOE stated our comments to the Proposed Plan would not be dispositioned with us prior to the release of the final CAD/ROD. This statement leaves us very concerned. Our previous communication process has been negated by this statement and does not give us the ability to discuss our concerns. We are left to rely on language in a post-closure document that we have not had an opportunity to comment on.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

72. 2.5.4 We ask the RFCA Parties to work with us to ensure we continue the IMP process. To date, we have been willing to accommodate DOE's needs to concentrate on closure activities. We offer to host the meetings. We can have informal meetings to discuss data and exchange information, and we will try to meet the schedule of Legacy Management. Our justifications were conveyed to Legacy Management in 2004 and we only ask Legacy Management to adhere to their commitment made in 2004 to the City and County of Broomfield and to the City of Westminster. We ask that you work with our technical staff member to resolve this issue prior to the release of the final CAD/ROD.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

73. 2.5.5 To minimize the need for several meetings postclosure, the city and County of Broomfield and Westminster recommended the Water Working Group and the Quarterly Data Exchange meetings be combined. During these meetings the monitoring plans could also be evaluated on an annual basis. We The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication

ask that you respond to our request.

between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

74. 3.1.1 The document states: Because the parties had anticipated using institutional controls consistent with the anticipated future use of the site, CDPHE determined that a post-remediation analysis of residual risk on a release site basis was not necessary. The document does not state how and if institutional controls will apply at the point-of-compliance monitoring stations, boundary groundwater wells, or other monitoring stations outside of the proposed boundary. Please refer to our previous comment in Section 2 related to implementation of institutional controls. Revise the document to state the justification for not performing the post-remediation analysis. With the 903 Americium, is the analysis solely performed for dose or was inhalation considered for visitors, including children?

CDPHE concluded that, with the application of institutional controls, the risk analysis contained in the CRA, which evaluated risk on an EU-by-EU basis, was sufficient to adequately characterize the risks posed by residual contamination at Rocky Flats. Per the CAD/ROD, institutional controls apply to the entire Central OU. The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2) as well as at the points where Woman Creek and Walnut Creek cross the site boundary near Indiana Street. DOE will be required to protect and maintain these locations to ensure they continue to function as designed, regardless of their location relative to the Central OU. The analysis of risk posed by residual surface soil contamination to the anticipated future users (that is, the WRW and the WRV) included an evaluation of the inhalation pathway, which was noted in the Site Conceptual Model as being a potentially complete and significant pathway. This was done in for all the EUs including the Wind Blown EU, where the former 903 Pad was located. Both risk and dose were evaluated for surface soil contamination by radionuclides. The WRV evaluation was performed for both an adult and a child.

75. 3.1.2 The RFCA Parties committed to generate a final map of the site after the completion of the closure project to reflect the remaining residual contamination. This map was to assist the general public with a visual map of where residual contamination remained and where ICs would be applied. The RI/FS has several maps with considerable information, but this is not what the governments have been requesting. Revise the document to include an overlaid map identifying all the residual radioactive contamination in the soils, the remaining foundations, slabs, tanks, etc. and the groundwater contaminant plumes. This map should

DOE is developing a map or maps to address your comment. Institutional and physical controls will be required for the Central OU.

also include all the monitoring systems associated with the remedy. Institutional controls and access controls should apply to any area with residual contamination that needs to be protected from the public or contains a monitoring system to evaluate the remedy.	
76. 3.1.3 The document is silent on physical controls and Institutional Controls for the Points-of-Compliance (POCs). It is ironic that the only two enforceable surface water monitoring stations will not be secured and protected from the general public. Revise the document to include language that fencing as an enforceable control will secure the POCs. In the event the POCs have to be relocated, the RFCA Parties will work with the impacted communities during the relocation process.	The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU.
77. 3.1.4 Revise the boundary map, Figure 3, to include stamped areas retained by DOE for the Points-of-Compliance.	DOE is developing a map or maps to address your comment.
78. 3.1.5 Revise the boundary map, Figure 3, to include stamped areas retained by DOE for the groundwater wells at the site boundary.	DOE is developing a map or maps to address your comment.
79. 3.1.6 Revised the boundary map, Figure 3, to include stamped areas retained by DOE for surface water stations located outside of the DOE retained lands.	DOE is developing a map or maps to address your comment.
80. 3.1.7 We understand the language in the post-closure document will have boundary signs mandated as a legal control. We do not understand the issue the RFCA Parties have with mandating the fence as a legal control.	A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. However, DOE and USFWS have agreed that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with

DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU. In addition, DOE and the regulators have agreed to post signs at the main pedestrian and vehicle entrance gates into the Central OU outlining the specific institutional control restrictions from the CAD/ROD and environmental covenant.

81. 3.2.1 The plan provides a map, Figure 3, delineating the Operable Unit (OU) boundaries. The RFCA Parties have decided to reconfigure the OU boundaries to consolidate all areas of the site that may require additional remedial actions into a final reconfigured Central OU. The boundary of the new Central OU, also considers practicalities of future land management.

Broomfield understands the need Legacy Management (LM) has to establish a footprint that is as small a possible to reduce management cost and liability. We believe remedy evaluation and remedy protection have far greater justification to determine a boundary than the land management practicalities that were provided as justification for the proposed boundary.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. The boundary of the Central OU was determined based on data contained within the Proposed Plan as well as the RI/FS. The "practicalities of future land management" address minor adjustments to the boundary in consideration of sensitive habitats and surface topography. Remedy selection and protection is the driver behind the location of the boundary.

82. 3.2.2 Broomfield and the City of Westminster do not agree with the proposed boundary for the south side of the Original Landfill. There appears to be two choices for the south boundary. The proposed boundary is to site the boundary to the north of Woman Creek directly south of the Original landfill. Further east of the Original Landfill site, the boundary moves south of the creek. The rationale provided to us by the RFCA Parties for determining the boundary was to make it more practical for the Fish and Wildlife Service so that they would not have to access DOE retained land in this area and then exit the boundary to continue with land management operations outside of the DOE boundary. We were then provided another justification based on the need to protect the wetland area directly south of the Original Landfill. Based on a tour taken in July, we are in agreement with the placement of the boundary directly south of the Original Landfill.

There is no justification to expand the area of DOE retained lands for purpose of access. Per the Refuge Act DOE may access any area, whether in the Central OU or Peripheral OU, which is required for monitoring or remedy purposes. However, consultation with USFWS following direct field investigation indicated several concerns about encroachment on habitat and maintenance of the CAD/ROD physical controls. Based on these concerns, the boundary was expanded outward in a few areas, most notably south of the Original Landfill (see Figure 3). Land-use issues affecting Rocky Flats National Wildlife Refuge Lands are addressed in the U.S. Fish & Wildlife Service's Environmental Impact Statement. DOE will be required to maintain and protect any monitoring locations in the wildlife refuge to ensure that they continue to function as designed, regardless of their location relative to the Central OU. Specific monitoring requirements will be addressed in

We, however, do have concerns for the justification to exclude from the DOE retained lands the upgradient surface water monitoring station and the immediate downgradient surface monitoring station associated with the Original Landfill. We disagree with DOE that the two crucial surface water stations should be located outside of the DOE retained lands. There is no justification to exclude these water stations from DOE retained lands. Revise Figure 3 to expand the DOE retained lands to include GS-05 and GS-59. These stations are not located in steep areas, nor are they in riparian areas. The other alternative is to manage all the surface water stations consistently at the site and apply institutional and physical controls to these two stations associated with the Original Landfill. They would have to have additional layers of protection just as the POCs and the boundary wells at Indiana Street. All monitoring stations and wells should be maintained, operated, and funded by DOE.

the RFLMA, which will be made available for public comment.

83. 3.2.3 Groundwater from the Original Landfill is designed to flow underneath the buttress and migrate directly into Woman Creek. The Proposed Plan does not address the process to site groundwater wells or surface water monitoring stations within the refuge if warranted based on technical recommendations. Revise the Proposed Plan to address the process to potentially locate future monitoring systems outside of the DOE retained lands.

Locations of groundwater monitoring wells at the Original Landfill were chosen with the approval of CDPHE and EPA. Pursuant to RCRA/RFCA, one well is up-gradient and three wells are downgradient of the OLF. If there is an increasing trend in downgradient versus up-gradient monitoring wells, or if a selected percentage of the data exceed surface water standards, the RFCA parties must consult with each other. Surface water monitoring at the OLF proceeds in a similar manner. The Refuge Act permits DOE access to the refuge area to conduct operation and maintenance, and any other obligations it may have under RFCA or the Legacy Management Agreement. The Memorandum of Agreement between DOE and the Department of Interior will likely address details related to DOE's access to the refuge lands.

84. 3.2.4 These monitoring stations located outside of the DOE-retained lands provide crucial data. This data allows a proactive approach to identify a potential issue close to the source rather than a reactive approach that could impact water quality in the creeks or ponds. We cannot emphasize enough that the creek and the ponds

The remedy does not rely on or assume that the creeks or ponds treat or dilute surface water.

should never serve as a treatment method or serve as a unit to dilute contaminants prior to discharge into waters of the United States.	
85. 3.2.5 To assist with a final determination of the southern boundary, we prefer that one of our previous consultants or technical staff assist with identifying the final boundary on the south side of the site associated with Woman Creek.	There is no justification to expand the area of DOE retained lands for purpose of access. Per the Refuge Act, DOE may access any areas, whether in the Central OU or Peripheral OU, that are required for monitoring or remedy purposes. Boundaries of the operable units established in the CAD/ROD. However, consultation with USFWS following direct field investigation indicated several concerns about encroachment on habitat and maintenance of the CAD/ROD physical controls. Based on these concerns, the boundary was expanded outward in a few areas, most notably south of the Original Landfill (see Figure 3).
86. 3.2.6 Based on proposed activities identified in the Comprehensive Conservation Plan (CCP) drafted by the Fish and Wildlife Service the southern portion of the refuge will have much more activities than the north side. We have additional concerns activities such as hunting, horseback riding, and other off-trail activities could jeopardize the integrity of the monitoring stations near the Original Landfill.	The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. DOE will be required to maintain and protect monitoring equipment to ensure that they continue to function as designed.
87. 3.2.7 Just as the Preble's Meadow Jumping Mouse has a 300-foot protection area, we believe the remedy should also have an identified minimum protective area to protect the monitoring systems and the remedy from the public.	DOE will be required to maintain and protect monitoring equipment to ensure that they continue to function as designed.
88. 3.2.8 Revise the map, Figure 3, to move the boundary north of the Present landfill at least 300 feet from landfill boundary. It may be practical to follow the road north of the landfill, but the area northeast of the landfill should be pushed further north to protect the cap based on the proximity to the road and the cap.	The boundary of the Central OU was determined based on data contained within the Proposed Plan as well as the RI/FS. The OU boundary established in the Proposed Plan fully encompasses the Present Landfill and is protective.
89. 3.2.9 We would like to emphasize our concern is not the risk associated with the landfills, but rather the potential of public	DOE fully agrees with this comment. DOE will be required to maintain and protect monitoring and remedy locations to ensure

damage to the remedies and the monitoring stations that evaluate the remedy.

that they continue to function as designed.

90. 3.2.10 It is germane to identify the above mentioned POCs, surface water monitoring stations, and boundary wells on the map, Figure 3. Language for implementation of ICs and access controls shall be included in the Proposed Plan. We ask to participate with the development of the controls prior to the release of the final CAD/ROD. If sufficient controls are in place, we support Alternative 2. If clear controls are not defined, implemented, or enforced, we would therefore support Alternative 3.

DOE is developing a map or maps to address your comment. Early draft efforts have shown that including all the information listed in your comment on a single map makes it so cluttered that it is unreadable.

The suggested revisions are inappropriate for the Proposed Plan, which develops broad alternatives for remedial action. Approval of the CAD/ROD will select the alternative and establish the requirements to implement that alternative. More detailed information describing how DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the RFLMA. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

91. 3.2.11 A fence around the Central OU should be more than a best-management practice. Revise the document to state the fence will be an enforceable control associated with the remedy and placed around the DOE-retained lands and monitoring systems outside of the DOE retained lands. In addition, the fence should be legally enforceable for these stations. This language in the CAD/ROD should support the enforceability of the fence in the post-Rocky Flats document as a regulatory mandated physical control. We expect the fence to be a legal control that is enforceable and will have identified maintenance and surveillance schedules. Corrective actions pertaining to the physical condition of the fences should also be identified in a Standard Operating Procedure for inspections of the site boundary and include signage.

A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. However, DOE and USFWS have agreed that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU.

92. 3.2.12 Broomfield is concerned the proposed boundary does not include the 903 Americium Area. To state: *These levels of radioactivity are also far below the 231 pCi/g activity level for an* 

The Peripheral OU will be transferred from DOE to USFWS (in large part), and will become the Rocky Flats National Wildlife Refuge. The RI found that conditions in the Peripheral OU were

adult rural resident that equates to the 25 mrem/year dose criterion specified in the Colorado Standard for Protection Against Radiation may be simplifying the risk based on dose. The issue with this area is to prevent digging to prevent dust dispersion and to control erosion to protect surface water quality. Not including this area within the Central OU (DOE retained lands) will have no associated ICs with this area. It would be irresponsible to allow digging or installation of groundwater wells for irrigation or other domestic use in this area. Activities in this area should not be allowed, especially horseback riding, trails, or any activity that could generate additional dust or increase the potential for erosion.

suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Plans for use of groundwater by USFWS in the Refuge are beyond the scope of this CAD/ROD; however, information on Refuge management may be found in the CCP for the Rocky Flats National Wildlife Refuge prepared by USFWS.

93. 3.3 Based on the Independent Verification and Validation review by ORISE in the 903 pad and Inner Lip Area, there were additional hot spots that were identified in the 903 pad and Inner Lip area. We therefore question the potential for hot spots in the Americium Area. Revise the map to include the Americium Area in the DOE retained lands.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. The Central OU includes the historical 903 Pad and much of the wind blown area. While a small portion of the Peripheral OU may contain plutonium-239/240 above background in surface soil, the RI determined that from a risk perspective that portion of the site is acceptable for all uses.

94. 3.3.2 We would also be concerned if grazing were allowed in the Americium Area. Erosion would increase in this area and there would be a potential to impact Woman Creek. The runoff in this area would not be captured in C-2 and could potentially leave the site without being monitored. Clarify the basis for figure 3 in the Proposed Plan (Attachment 1) versus the proposed boundary in the Comprehensive Conservation Plan as identified below.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. The Central OU includes the historical 903 Pad and much of the wind blown area. While a small portion of the Peripheral OU may contain plutonium-239/240 above background in surface soil, the RI analyzed and modeled erosion and windblown exposure scenarios, and determined that from a risk perspective that portion of the site is acceptable for all uses.

95. 4.1.1 There are also two outcrops directly south of the creek that may one day need to be evaluated for surface water quality. Until we have sufficient data to ensure both groundwater and surface water quality are not impacted from the Original Landfill,

Locations of groundwater monitoring wells at the Original Landfill were chosen with the approval of CDPHE and EPA. Pursuant to RCRA/RFCA, one well is up-gradient and three wells are downgradient of the OLF. If there is an increasing trend in down-

we need the ability to monitor in Woman Creek or directly south of Woman Creek if warranted. ICs would only apply to the DOE retained lands and the ability to add additional monitoring stations in the refuge could be very difficult if the refuge does not manage any lands associated with ICs. It is premature to assume there is sufficient data to evaluate the remedy for the Original Landfill. Revise the Proposed Plan to include language to allow for adding to the monitoring system outside of DOE retained lands if warranted by an evaluation of the RFCA Parties and the Water Working Group.

gradient versus up-gradient monitoring wells, or if a selected percentage of the data exceed surface water standards, the RFCA parties must consult with each other. Surface water monitoring at the OLF proceeds in a similar manner. The Refuge Act permits DOE access to the refuge area to conduct operation and maintenance, and any other obligations it may have under RFCA or the Legacy Management Agreement. The Memorandum of Agreement between DOE and the Department of Interior will likely address details related to DOE's access to the refuge lands. The Legacy Management Agreement will incorporate the requirements for monitoring at the Original Landfill that are found in the OLF Monitoring and Maintenance Plan.

96. 4.1.2 With current data, we do not question the risk of the Original Landfill to human health and the environment. We do question the integrity of the cover on the landfill and the ability to keep the buried waste segregated from groundwater infiltration and infiltration from precipitation. Our concern is with the current seeps on the cover that now have a higher potential to release contaminants directly into Woman Creek that previously were not mobile or at the surface to flow directly into Woman Creek.

The potential for the Original Landfill to impact Woman Creek as a result of the seeps, surface runoff, or ground water was a primary consideration of the design and construction. The locations of ground water and surface water monitoring will monitor any impacts to the creek as well as changes in the ground water that might impact the creek. The intent of the remedial action was to stabilize the hillside. Protecting the buried waste from precipitation infiltration is not one of the functions of the cover. The landfill cover will also be monitored for integrity to ensure long-term performance.

97. 4.1.3 Per the document, the cover is effective and protective based on the identified pathways that were evaluated. With the current seeps we now have a pathway that was not evaluated. We question the integrity of the cover and the numerous seeps that have developed since the placement of the cover. See Attachment 2.

No new seep areas have developed at the Original Landfill (OLF) that were not recognized during design and construction. Seep #7 did express itself at the surface a few months after construction, and now expresses itself higher on the hill. DOE is evaluating the need to extend the french drain system at Seep #7 to intercept this upper area. The design and construction of the OLF accommodate variable moisture/hydrologic conditions on and in the landfill with no compromise in performance. Required surveillance and monitoring are adequate to ensure appropriate evaluation of the landfill performance.

98. 4.1.4 The water in Attachment 2 could have been sampled to provide additional data to document the quality of the groundwater surfacing as a seep. Westminster, the City and County of Broomfield, and our Professional Consultants voiced their concerns with the placement of a shallow cover to prevent groundwater passing through the waste and surfacing at the cover. There was nothing in the landfill closure document to prevent the groundwater from passing through the waste and into Woman Creek. We voiced our concern with groundwater being allowed to directly enter Woman Creek without being monitored. Now the remedy has exacerbated the situation by causing the groundwater to seep to the top of the cover and potentially have a new pathway that was not evaluated.

The potential impacts of all runoff water from the Original Landfill are monitored by the surface water monitoring locations in Woman Creek near the landfill. The landfill cover was not designed to prevent infiltration. Prior to design and construction when far more infiltration, active seepage, and uncontrolled runoff occurred than now, monitoring data never indicated any impact of the landfill on Woman Creek. The current surveillance and monitoring will continue to evaluate the remedy.

99. 4.1.5 We are very concerned the Original Landfill IM/IRA states monitoring of the Original Landfill will consist of quarterly monitoring until the first CERCLA review. We understand the next 5-year review will be in spring of 2007 and with the current status of the integrity of the cover, DOE would not show due diligence if they did not continue to monitor quarterly until the next review in 2012. We ask this because there would be sufficient data to evaluate remedy and the changes to hydrology in this area.

As stated in this comment, and per the CAD/ROD, the next CERCLA periodic review will take place in 2007, to coordinate this review with the schedule for periodic reviews already established at Rocky Flats. At this time, DOE does not anticipate that the review will result in major changes to the monitoring programs established pursuant to the CAD/ROD. However, that determination will be made in the context of the data analysis as part of the periodic review.

100. 4.1.6 The City of Westminster also reserves the right to ask for periodic sampling of the South Interceptor Ditch if warranted.

The CAD/ROD states that the environmental monitoring, as well as the monitoring that will be included in RFLMA, is adequate to ensure continuing protectiveness of the remedy. Therefore, the CAD/ROD requires no additional sampling.

101. 4.1.7 We agree with the list of analytes to be evaluated at the Original Landfill are the full set of analytes identified in Attachment 5, Table 1. We understand the sampling as recent as February 2006 triggered monthly sampling per the decision rule. Arsenic and thallium were above the RFCA standard. The City of Westminster expects to be kept apprised of the results of the monthly sampling. This is once again justification for the need of a

Recent detections of arsenic and thallium occurred at the Present Landfill Pond, not at the Original Landfill. The CAD/ROD requires DOE to report environmental data on a quarterly basis, and that these reports be made available to the public.

Water Working Group to implement a strategic water management plan for the site.

102. 4.1.8 We question the success of the restoration effort on the cover and areas still do not have established growth. We are very concerned without a successful restoration effort; Woman Creek will be vulnerable to mass loading of sediment. (Attachment 3)

While the vegetation on the OL appears sparse this year, it has done extremely well considering the weather conditions. RFETS has had only had about 1/3 of our normal precipitation for the entire year so far in 2006, so considering the weather, what DOE is seeing is actually quite good. The EPA and their expert consultant toured the OL during the summer to evaluate the health of the vegetation cover. The EPA expert thought the OL area looked great, especially considering the drought conditions. A large amount of new grass has sprouted since the site began receiving effective precipitation in late June. Mats and other erosion controls are effectively controlling sediment loss. The remaining seed is still in the ground awaiting more favorable conditions. Time and patience is the key for a native revegetation project such as this.

The dry spring and early summer conditions have actually allowed more seed to sprout prior to any substantial precipitation events. Had such an event occurred in the spring when the area was less vegetated, it would have caused extensive erosion and resultant deposition. Future precipitation events will be buffered by the existing and developing ground cover and will cause less detrimental effects.

103. 4.2.1 We agree based on the current data, there is minimal risk at the Present Landfill. The risk assessment was based on previous data. With the new sampling and monitoring plan, Attachment 5 of the current RFCA lists the analytes to be monitored at the treatment unit. It was not until this sampling plan was revised that the effluent was sampled for a full suite of analytes. The last analytes identified above the stream standards were boron and manganese. The RFCA standard for boron is 750  $\mu g/L$  and the result was 1,930  $\mu g/L$ . Manganese standard was 1,858  $\mu g/L$  and the result was 5,650  $\mu g/L$ . Monthly sampling was

Per the CAD/ROD, the requirements for monitoring and maintenance at the Present Landfill will be derived from the approved Monitoring and Maintenance Plan for the Present Landfill, which addresses water quality issues in the Present Landfill Pond. These requirements are part of the selected remedy, and will be incorporated into RFLMA.

initiated for these two analytes. The sampling events were triggered and the quarterly monitoring was increased to monthly sampling for three consecutive months. We are very concerned water is allowed to discharge from the Present Landfill Pond into No Name Gulch knowing the effluent exceeds surface water standards. How can DOE be allowed to discharge water that exceeds the surface water standard and have the approval of the regulators? Once again, we understand the risk is minimal, but the standards are regulatory mandated and we do not understand the application of the discharge versus the stringent standard our waste water facilities have to adhere to prior to discharge.

104. 4.2.2 We are very concerned with the language in the Present Landfill IM/IRA that states the pond will be sampled based on a "decision rule." We have no role in the decision, yet the City and County of Broomfield may be directly impacted.

Per the CAD/ROD, the requirements for monitoring and maintenance at the Present Landfill will be derived from the approved Monitoring and Maintenance Plan for the Present Landfill, which addresses water quality issues in the Present Landfill Pond. These requirements are part of the selected remedy, and will be incorporated into RFLMA. The CAD/ROD requires that RFLMA, in which substantive requirements for monitoring and maintenance of the Present Landfill will be incorporated, be subjected to formal public comment. The CAD/ROD also requires that water quality data be reported by DOE on a quarterly basis, and that these reports be made available to the public.

105. 4.2.3 The objective of the treatment system at the Present Landfill is to *demonstrate compliance with surface water standards*. The risk assessment evaluated risk, yet there seems to be a diminishing of the need to demonstrate compliance with RCRA regulated unit. Revise the document to provide justification for allowing a release of surface water without demonstrating compliance.

Per the CAD/ROD, the requirements for monitoring and maintenance at the Present Landfill will be derived from the approved Monitoring and Maintenance Plan for the Present Landfill, which addresses water quality issues in the Present Landfill Pond. These requirements are part of the selected remedy, and will be incorporated into RFLMA.

106. 4.2.4 We do not agree with measuring compliance with the Present Landfill at the POC at Indiana. The POC for the Present Landfill should be at the outfall of the treatment unit before it is

The CAD/ROD requires that POCs remain at the outfalls of the Rocky Flats terminal ponds, as well as in Walnut Creek and Woman Creek at Indiana Street. Per the CAD/ROD, the

released to waters of the state.

requirements for monitoring and maintenance at the Present
Landfill will be derived from the approved Monitoring and
Maintenance Plan for the Present Landfill, which addresses water
quality issues in the Present Landfill Pond. These requirements are
part of the selected remedy, and will be incorporated into RFLMA.

107. 4.2.5 There appears to be subsidence on the northeast face of the cap on the steep slope north of the treatment unit/pond. The Proposed Plan states the remedy is functioning per design. The document does not address the subsidence. We are concerned about slippage of the hillside in this area and it was addressed in our Present landfill comments in the IM/IRA. Please respond as to how this issue will be addressed.

At this time, DOE is unaware of any subsidence north of the treatment system in the landfill cover as suggested by the commenter. Surveillance and monitoring requirements for the Present Landfill result in a very comprehensive on-going evaluation of the remedy. If at any time slope movements or subsidence are observed, the conditions are documented and the situation is monitored and evaluated. If any actions are required to assure remedy performance, those actions will be developed through the consultative process among the RFCA parties.

108. 4.2.6 We observed a discoloration of the water in the treatment unit during our tour on August 21. Please clarify the reason for the discoloration in the unit.

The orange discoloration observed in water at the Present Landfill treatment system is typical of water containing dissolved iron when it is exposed to oxygen in the air.

5.1 During remediation of the Industrial Area, both the 109. City of Westminster and the City and County of Broomfield voiced their concern about the specifications pertaining to compaction at the site. Since regarding the 991 area there is severe subsidence and cracking in the area. (Attachment 4). We were lead to believe this instability in the area was due to lubrication from an outfall of a French drain. SW056 was in this area to measure water quality. At the end of September 2005, the outfall of the drain was removed and the east-west portion of the drain was interrupted. Sentinel well 45605 was installed upgradient (west) of the interruption and downgradient (north) of the remaining portion of the drain. There still continues to be a problem in this area. The outfall eliminated the flow into FC-4, but the cracks continued to increase in depth and width. We are very concerned the floor of FC-4 is experiencing extreme uplift. This area has a high potential to have both

The area of slope instability mentioned (in the vicinity of old SW056) is undergoing detailed and ongoing surveillance. At this time, there is no adverse impact on the surface water quality by VOCs or radionuclides as a result of the instability. VOCs are known to be present in the ground water in the vicinity of the slump while uranium (mostly naturally occurring) is known be present in the ground water site-wide. Ongoing surface water monitoring will occur to determine if there are any adverse effects from the unstable area. Regarding the deformation of functional channel FC-4 resulting from the slope instability, ongoing observation will continue and if the functionality of the channel is compromised, repairs will be made.

radioactive and VOC contamination that was not adequately characterized. Based on the risk analysis of the contamination, there was not pathway for the radioactive contamination. The area has massive cracks and now may have a pathway that was not analyzed in the risk analysis.

110. 5.2 We commend DOE for having a geotechnical engineer inspect the areas and suggest actions that could stabilize the slope. We have yet to see a schedule or plan to correct this situation. We are very concerned of mass sediment loading into Southern Walnut Creek. We strongly disagree with DOE and the regulators that this *is not a CERCLA issue* because we do have groundwater monitoring stations in this area and this area flows directly into South Walnut Creek. We have GS-10 directly downgradient of this area and we continue to have elevated concentrations at this station. To state *Well 45605 will continue to be monitored in accordance with the IMP for as long as that is feasible*, in itself speaks of the need to monitor this area because of residual contamination.

As the commenter points out, the surface water POE GS-10 is directly down-gradient of the area of slope instability and any erosion related sedimentation. Any adverse water quality impacts that could occur will be observed. To date, there have been none. The relevant question is not whether there is a stability problem or how to fix it; it is whether the remedy is adversely impacted by site conditions. As there is no adverse impact to the remedy at this time and there is no reason to believe there will be, the parties will continue to observe and monitor. (Also, see response to 5.1 above)

111. 5.3 We ask for justification as to why the area is not being stabilized. The reasoning provided by the RFCA Parties is: to repair it would be fairly significant and stabilization would entail surface grading and backfilling as well as loading the toe of the slope. Both of these activities would cause considerable damage to the newly-graded ground in this area, and could require the establishment of new roads to the bottom of the slope. The regulators came to a consensus to continue to observe condition in this area. When conditions have stabilized, LM will develop a plan to regrade to meet general aesthetic and safety objectives.

The RFCA parties believe the current approach of surveillance and monitoring is appropriate and protective. The site remedy has not been adversely impacted by the slope conditions. It is not unexpected that after so much dirt moving on the site that some slope adjustments will naturally occur. DOE will continue to observe the entire site for signs of instability and evaluate any conditions for impact to the remedy. (Also, see responses to 5.1 and 5.2 above)

112. 5.4 When on the tour in June of 2006, technical staff asked when and how well 45605 would be replaced and the response was the issues would be discussed through the RFCA consultative process. There was no mention of discussing this issue via the Water Working Group. This statement confirms, as does the

Well 45605 is still operational and has not been replaced. Should the well become non-functional, a new well will be installed.

language in the Quarterly Report for June 2006, that the RFCA Parties do not support the spirit of RFCA to include the downstream municipalities with decisions that could impact their communities.

113. 6.1 We disagree with the statement in the Proposed Plan and the RI/FS that Continued operations of these four systems serves to protect surface water quality over short-and-long intermediate-term period by removing contamination loading to surface water. This protection also serves to meet long-term goals for returning groundwater to its beneficial use of surface water protection. We agree the systems should serve as a final remedy, but they currently do not function effectively as per design.

The RFCA Parties believe that the groundwater treatment systems are functioning as designed and are part of the final remedy. Continued operation of these systems serves to protect surface water by reducing the groundwater contaminant loads that would be discharged to surface water. As part of DOE's commitment to maintain these systems so that they continue to function as designed, the Solar Ponds Plume Treatment System was recently repaired to improve its treatment efficiency.

114. 6.2 Broomfield understands when the treatment units were sited, some sections of the groundwater plumes were downgradient of the units, and therefore, we had sacrificial zones and expected to see degradation of the contaminant as loading was diminished. Data for some of the units are sporadic and leave us to question if the contamination in the groundwater is from the plume bypassing the unit or from a separate source that has yet to be identified.

As indicated in the Groundwater Interim Measure/Interim Remedial Action (IM/IRA), these groundwater systems were not intended to capture all of the groundwater contamination but to intersect the down-gradient portion of the plume, thus reducing the groundwater contaminant load discharging to surface water. DOE recognizes that portions of the contaminant plumes exist downgradient of the treatment systems as constructed, which will be slowly removed over time as the groundwater contaminant load is diminished. However, based on the extensive site characterization and historical release evaluations, the RFCA Parties have concluded that it is unlikely that significant unidentified sources of contamination exist that could impact groundwater. The RFCA Parties believe that monitoring currently conducted at the treatment systems is sufficient to evaluate their efficiency and long-term performance.

115. 6.3 Based on GEI's report on the evaluation of the Groundwater IM/IRA, they were concerned there was an adequate evaluation of all the groundwater plumes at the site. GEI was concerned with the statement made by DOE that all the treatment units were functioning per design, yet there were insufficient data

Based on the extensive site characterization conducted at the site and the subsequent modeling results presented in the Groundwater IM/IRA and the Summary of Hydrologic Flow and Fate and Transport Modeling Conducted at RFETS, Golden, Colorado, dated September 2005, the RFCA Parties believe that all of the

sets to verify modeling of the contaminants. The Solar Pond Treatment Unit for years has been a concern to our staff and DOE cannot confirm they will be able to meet the nitrate standard of 10mg/L in 2009 when the temporary standard expires. We ask that in your disposition to our comments you provide a plan and assurances that you will be able to meet the 10mg/L standard at the effluent of the Solar Ponds treatment unit and at the discharge point of the Discharge gallery for the Solar Pond Unit.

groundwater plumes at the site have been sufficiently evaluated. Furthermore, groundwater conditions at the site continue to be evaluated. As indicated, in response to Broomfield/Westminster Comment 6.1, the groundwater treatment systems are functioning as designed, especially with the recent repairs to the Solar Pond Plume Treatment System which have increased its throughput and overall efficiency. DOE will continue to monitor groundwater and surface water with the goal of achieving the nitrate standard of 10 mg/L by 2009.

116. 6.4 GEI recommended a more robust sampling program to provide an additional layer to the monitoring program. This additional evaluation of data would also serve to provide additional protection to offsite receptors.

The RFCA Parties believe that the current sampling program is very robust and no additional sampling is needed for an additional layer to the monitoring program. This would not serve as additional protection to offsite receptors since all the impacted groundwater discharges to surface water up-gradient of the terminal ponds and does not leave the site above water quality standards.

117. 6.5 Walnut Creek should not be used as a treatment method to dilute nitrates or uranium and we expect to have the standard met prior to entry into Walnut Creek.

The Solar Ponds Plume Treatment System goal (and the associated monitoring identified in the IMP) is to meet the surface water standard upon entry of groundwater into Walnut Creek. It should be noted that the majority of the uranium in North Walnut Creek is from natural sources and not man-made sources.

118. 6.6 We argue that the objective of the treatment unit at the Solar Pond has been met. We question the length of time DOE took to evaluate the mechanical and operational aspects of the effectiveness of the unit. We thank DOE for taking action to determine the performance issue with the treatment unit. We also applaud DOE for performing a treatability study. Our concern is the study will be performed within the unit. We ask that the RFCA parties perform a bench-scale treatability test prior to using the treatment unit as a scientific experiment. With closure of the site, the unit is to be a final remedy, not an interim remedy.

The SPPTS has undergone substantial repair and maintenance in the summer and fall of 2006. These actions are expected to restore the system to its original operating condition, which has been shown to be effective in treating nitrate and uranium isotopes in shallow groundwater in the vicinity of the historic Solar Ponds. Continued maintenance of the system to ensure its long-term effectiveness is a requirement of the CAD/ROD.

119. 6.6	.1 We ask to be informed on a weekly basis of the
status of th	e unit based in the impact of the contaminants to Walnut
Creek.	

The CAD/ROD requires that water quality data be reported by DOE on a quarterly basis, and that these reports be made available to the public.

120. 6.6.2 We are concerned that the new proposed media may not work and there will be a need to expend additional resources to remove the overburden and remove the experimental media. This action would result in the generation of additional waste and additional risk to the workers.

The SPPTS has undergone substantial repair and maintenance in the summer and fall of 2006. These actions are expected to restore the system to its original operating condition, which has been shown to be effective in treating nitrate and uranium isotopes in shallow groundwater in the vicinity of the historic Solar Ponds. Continued maintenance of the system to ensure its long-term effectiveness is a requirement of the CAD/ROD.

121. 6.6.3 When the treatability study has been completed, we request a copy of the results for our review and evaluation.

Treatability study results will be contained in either the annual or quarterly DOE reports that are required by the CAD/ROD. These reports will be made available to the public.

122. 6.6.4 DOE has argued that the nitrate results in the discharge gallery are higher than the effluent from the treatment unit because sections of the groundwater plume were downgradient from the sited treatment unit. After more than six years we have not seen a significant decrease in nitrates in the discharge gallery.

The CAD/ROD recognizes that, while groundwater accelerated actions performed under RFCA will ultimately lead to improvements in groundwater quality, contamination will remain in the UHSU in the Central OU for some period of time. The CAD/ROD also references the Groundwater IM/IRA, which found that there are no additional, practical steps that can be taken to improve groundwater quality at Rocky Flats. The CAD/ROD also notes that the areas of surface water affected by contaminated groundwater, such as in North Walnut Creek, are limited. The SPPTS has undergone substantial repair and maintenance in the summer and fall of 2006. These actions are expected to restore the system to its original operating condition, which has been shown to be effective in treating nitrate and uranium isotopes in shallow groundwater in the vicinity of the historic Solar Ponds. Continued maintenance of the system to ensure its long-term effectiveness is a requirement of the CAD/ROD.

123. 6.6.5 Revise the document to state once all the treatment units are meeting their remediation action objectives, DOE will

EPA, not DOE, files the Notice of Intention to delete a site from the NPL. Deletion from the NPL is not an area that is propose to de-list the site.

appropriately addressed in the Proposed Plan, and will be considered later during site close-out activities.

6.7.1 Remedial action objectives are clearly developed to provide the foundation of cleanup actions at a site for all impacted media such as groundwater, surface water, soil, and environmental protection. It is clearly understood if the objectives are not met, there are specific mechanisms such as institutional controls to ensure protection of human health and the environment. Of the seven remedial action objectives that were evaluated for the feasibility study, not one objective is completely met. Mechanisms have to be put in place to prevent use, prevent exposure, or statements are made such as: At this time, no other additional actions can reasonably be taken are used as reasoning as to why the RAOs were not met. The RAO for exposures that results in an unacceptable risk to the Wildlife refuge worker is identified in Soil RAO Objective 3 for the WBEU. The contaminant of concern is plutonium-239/240 in soils. We understand the risk is still within the acceptable range of  $2x10^{-6}$ . We are concerned there are no controls in place to prevent digging within this area. Controls need to be in place for the life of the contaminant as long as it poses a risk. Impacts to Woman Creek also have to be considered as soils enter the creek.

The preferred remedy (Alternative 2) meets all RAOs. The Central OU includes the historical 903 Pad and much of the wind blown area. While a small portion of the Peripheral OU may contain plutonium-239/240 above background in surface soil, the RFCA parties have agreed that this portion of the site is acceptable for all uses.

125. 6.7.2 We are not asking for additional removal, but we do believe there should be a control to prevent digging in this area. Erosion control measures also have to be implemented and adhered to protect surface water quality.

The Central OU includes the historical 903 Pad and much of the wind blown area. While a small portion of the Peripheral OU may contain plutonium-239/240 above background in surface soil, the RFCA parties have agreed that this portion of the site is acceptable for all uses.

126. 6.7.3 Alternative 2 and Alternative 3 add the implementation of institutional and physical control. The seven controls are identified, yet the Proposed Plan states the controls will be embodied in a post-RFCA enforceable document and an environmental covenant. What is missing are the details of how the

The institutional and physical controls that are part of the final remedy, as documented in the CAD/ROD, were identified in the Proposed Plan. The public's opportunity to provide input into the development of the controls is by commenting on the Proposed Plan. The CAD/ROD requirements are implemented and enforced

controls will be implemented, what will be enforced, who will enforce the controls, public input into the development of the controls, and how corrective actions will be mandated. We have concerns as the document states: plans will be developed once evidence that violates the restrictions or damage of the controls are found. There may not be time to draft a plan or have it reviewed. We are being asked to review a document and evaluate the proposal yet significant details are excluded from the document.

through the RFLMA.

127. 6.7.4 Revise the Plan to state an annual report to the regulatory agencies and communities will include language pertaining to the failure of controls. Notification of any failure of controls should be made to the regulatory agencies and impacted communities as soon as DOE becomes aware of the failure. Any corrective action should also be reported to the regulatory agencies and the impacted communities and identified in quarterly and annual reports.

The CAD/ROD and the RFLMA specify reporting requirements to the agencies. These reports will be shared with the communities.

128. 6.7.5 If the details of the controls are to be addressed in the post-RFCA document, we ask for a 60-day comment period for time to evaluate the details of the long-term stewardship plan and controls.

Implementation and enforcement of institutional and physical controls will be described in the RFLMA. The RFLMA will be available for a 30-day public comment period.

129. 7.1.1 The City and County of Broomfield and Westminster continue to have problems accessing information on the electronic administrative record. We are very concerned the site will be delisted and we will not have access to vital information. This information per CERCLA, section 113 requires that an administrative record be established "at or near the facility at issue." The record is to be complied contemporaneously and must be available to the public and include all information considered or relied on in selecting the remedy, including public comments on the proposed plan. We understand new guidance calls for an electronic version of the administrative record. If the record is not accessible, it is not available. Provide a schedule of when DOE

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR may be obtained by contacting the LM public affairs office for the Rocky Flats Site.

anticipates the record will be available and functioning electronically. We also ask for assurances to have public input as to what document should be in the record.

130. 7.1.2 Most of the maps in the electronic version of the administrative record are in black and white. The maps and associated legends do not add any value to the record. Based on a \$7 billion cleanup, it would have behooved DOE to enter the information into the system so that the community could access information that is of value and can be understood and evaluated.

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public affairs office for the Rocky Flats Site.

131. 7.1.3 The City and County of Broomfield and the City of Westminster continually voice concerns about the availability of the record. We do not understand why the regulators do not enforce the regulation to meet the needs of the community.

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public affairs office for the Rocky Flats Site.

132. 7.1.4 We were disappointed to have a regulatory representative state *the record has to be available electronically, but the regulation does not state it has to be operable.* This statement is in direct contrast to the requirement of the law.

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public affairs office for the Rocky Flats Site.

133. 7.2.1 The Rocky Flats Reading Room located at the College Hill Library has served as a valuable tool to the community. We have been able to retrieve documents at the reading room that were not even available at the site.

The future of maintaining the reading room at the College Hill Library at the Front Range Community College will be determined during the upcoming 5-year CERCLA review of the Site.

134. 7.2.2 We ask the reading room be maintained until we have assurances the electronic version of the administrative record

The future of maintaining the reading room at the College Hill Library at the Front Range Community College will be determined

is fully functioning.	during the upcoming 5-year CERCLA review of the Site. The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a> , is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public
	affairs office for the Rocky Flats Site.
135. 7.2.3 Legacy Management has committed to work with us when it is decided to disposition the documents in the reading room. To date, we have not been involved with any decisions pertaining to the reading room.	The future of maintaining the reading room at the College Hill Library at the Front Range Community College will be determined during the upcoming 5-year CERCLA review of the Site.
136. 7.2.4 We understand the reading room was to be maintained until the end of the fiscal year. We now have heard unofficially the room will be maintained until next spring. Clarify the status of the reading room. We ask that the community be part of the decision process associated with the reading room and its records.	The future of maintaining the reading room at the College Hill Library at the Front Range Community College will be determined during the upcoming 5-year CERCLA review of the Site.
137. 8.1.1 Clarify the delisting process. How will the de-listing	EPA, not DOE, files the Notice of Intention to delete a site from
process differ from the certification process? We have asked for the criteria for certification, but still have not received the information.	the NPL. Deletion from the NPL is not an area that is appropriately addressed in the Proposed Plan, and will be considered later during site close-out activities.
138. 8.1.2 How will the Covenant's Bill be enforced if the state has no jurisdiction in the refuge outer perimeter associated with the monitoring system?	The Covenant with the state is not applicable to the refuge. The refuge act provides DOE the right to access to monitoring systems on refuge lands.
139. 8.1.3 The site should clearly have a time frame identified to determine when cleanup levels will be achieved for groundwater. It is assumed if the cleanup of the soils was adequate for radionuclides, we will have near term data to verify if the soil remediation was adequate.	The site will have 5-year reviews mandated by CERCLA. These 5-year reviews will look at data and determine whether remediation is working sufficiently. The outcome of 5-years reviews range from requiring additional or alternative remediation to canceling any follow-on 5-year reviews.

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to determine the dollar amount assigned to the natural resource

140. 8.1.4 Prior to delisting the site, we expect to see an identification of deficiencies and any corrective measures regarding work products if there were any identified. We specifically ask for a description of the deficiency for the Solar Pond Treatment Unit, the 991 area, and the cover at the Original Landfill. We ask the RFCA Parties prepare a plan as to how these issues will be resolved and a schedule of when actions will be taken to mitigate the issues prior to approval of the CAD/ROD.	EPA, not DOE, files the Notice of Intention to delete a site from the NPL. Deletion from the NPL is not an area that is appropriately addressed in the Proposed Plan, and will be considered later during site close-out activities.
141. 8.2.1 The document lacks the details of how the land transfer from DOE to the Service will occur.	The Proposed Plan is written to guidance under CERCLA, which does not call for outlining the transfer to the USFWS.
142. 8.2.2 The remedial action objectives were met if institutional controls were in place. There are several monitoring systems outside of the DOE lands that are within the Service boundary that will not comply with Applicable or relevant and appropriate requirement (ARARs).	The ARARs (surface water standards) are met in the Peripheral OU.
143. 8.2.3 Community acceptance criterion should be addressed in the CAD/ROD. Without having the opportunity to evaluate the language in the final CAD/ROD, we are interested in the evaluation process the RFCA parties will utilize when reviewing community acceptance based on comments received in writing and at the public meeting held on August 31.	Community acceptance criteria is addressed in the CAD/ROD. The process under CERCLA is for the Proposed Plan to be available for public review and comment. All comments received are addressed in this comment response document and attached to the CAD/ROD. The CAD/ROD will be available to the public upon approval by the regulators.
144. 8.2.4 We ask for a closeout meeting to discuss how the site will be maintained. We also want to discuss how the fences and warning signs will be properly installed and maintained.	Any meetings that occur as a part of the CERCLA public comment process must occur for the general public's benefit. CERCLA does not allow meetings during the process with individual organizations.
145. 8.3.1 We understand funding has been made available to purchase mineral rights. The plan is lacking the evaluation process	An assessment of natural resources damages is not required as part of the Proposed Plan. The recently passed legislation providing

funding for DOE to purchase mineral rights settles natural

damages.	resources damages claims arising from hazardous substances releases identified in the Rocky Flats Administrative Record as of the date of the Act. As such, there is no need to evaluate natural resources damages at Rocky Flats and consequently, no evaluation will be prepared.
146. 8.3.2 Provide the City and County of Broomfield and the City of Westminster with a copy of the evaluation of the damages.	An assessment of natural resources damages is not required as part of the Proposed Plan. The recently passed legislation providing funding for DOE to purchase mineral rights settles natural resources damages claims arising from hazardous substances releases identified in the Rocky Flats Administrative Record as of the date of the Act. As such, there is no need to evaluate natural resources damages at Rocky Flats and consequently, no evaluation will be prepared.
147. 8.3.3 We also question the ability of the bill to waive future liabilities for DOE in the event there are further damages.	An assessment of natural resources damages is not required as part of the Proposed Plan. The recently passed legislation providing funding for DOE to purchase mineral rights settles natural resources damages claims arising from hazardous substances releases identified in the Rocky Flats Administrative Record as of the date of the Act. As such, there is no need to evaluate natural resources damages at Rocky Flats and consequently, no evaluation will be prepared.

148. 9.1 The City and County of Broomfield and the City of Westminster were the only public members that took the time to comment on the Rocky Flats Site Post-Closure Public Involvement Plan, dated October 2006. We were very disappointed to see our comments were not given any weight, nor were they even dispositioned to allow for a fruitful discussion.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats

Stewardship Council. Post-closure public involvement is addressed in the LM Post-closure Public Involvement Plan, which is dated Oct. 2005. As noted in the PCPIP, future updates to the plan will be made as needed, but no more frequent than annually.

149. 9.2 We once again ask the document be revised to incorporate the needs of the downstream municipalities.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council. Post-closure public involvement is addressed in the LM Post-closure Public Involvement Plan. As noted in the PCPIP, future updates to the plan will be made as needed, but no more frequent than annually.

150. 9.3 The Public Involvement Plan should be evaluated on an annual basis with the input from local governments. Based on a recent court decision in the *Moses Lake case*, the court recognized that it would need to dispute what the phrase "participate in the planning and selection of the remedial action" found in CERCLA truly means. We understand the decision recognizes the local government statutory right to participate in the cleanup decision-making process beyond the current public participation process currently implemented by DOE. Long-term stewardship is a key aspect of the cleanup process and we expect DOE to extend the policy to our governments, especially impacted governments. We are asking to be involved and kept apprised of the long-term stewardship controls applicable to the site.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council. Post-closure public involvement is addressed in the LM Post-closure Public Involvement Plan. As noted in the PCPIP, future updates to the plan will be made as needed, but no

	more frequent than annually.
151. 9.4 Please refer to our several letters regarding long-term stewardship and our role as downstream communities.	DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council. Post-closure public involvement is addressed in the LM Post-closure Public Involvement Plan. As noted in the PCPIP, future updates to the plan will be made as needed, but no more frequent than annually.
152. 9.5 We anticipate the post-closure document will be released for review these upcoming months for our evaluation and input.	DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.
153. 10.1 We ask to be kept apprised of the drafting of the post-RFCA.	DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which

will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

154. 10.2 We ask the language pertaining to downstream communities and their role with water management be included in the post-closure document.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

155. 10.3 The post-RFCA should, as a minimum, include the details of the enforceability of the surface water standards, a continuation of the Water Working Group, Attachment 1 list of analytes, ICs, notifications, public participation plan, and other key factors related to long-term stewardship.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

156. 10.4 We ask to be kept apprised of the upcoming 5-year review. We ask to have sufficient time to review and evaluate the information related to the review.

An appendix to the RFLMA will describe the public involvement roles and processes. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

157. 10.5 We ask to accompany the team during the physical tour of the remedy for the 5-year review.

An appendix to the RFLMA will describe the public involvement roles and processes. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

## Comments from Ms. Garcia, City and County of Broomfield, Public Hearing August 31, 2006

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1. ... the fence. We also believe that that needs to be a regulatory driver. Our concern is, as a best management practice, we need to have something that'll actually serve as layering and protect the remedy itself, the life of the contaminants.

A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. However, DOE and USFWS have agreed that a fourstrand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU. In addition, DOE and the regulators have agreed to post signs at the main pedestrian and vehicle entrance gates into the Central OU outlining the specific institutional control restrictions from the CAD/ROD and environmental covenant.

2. As far as the institutional controls, I believe-- I'm really concerned about the map that was proposed. Our community for over a year has been trying to get a map – a draft map, and institutional controls do not include the points of compliance. They don't include two of the surface water monitoring stations

The CAD/ROD mandates that DOE retain POCs in surface water at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to

that we're concerned about. And, most importantly, they're not identified as the two AOC wells in the boundary or boundary wells. I've asked what the controls will be on those because, most important of all, the POCs are truly important to downstream communities, and we need to have controls on those.

function as designed.

I would ask that they put a stamped area around those areas if they have controls that apply to them. If not, it doesn't serve a purpose to have points of compliance without the controls.

3. And I also would like to see we have physical controls around them. It doesn't cost much to put a fence around those at the boundary of Indiana.

The CAD/ROD mandates that DOE retain POCs in surface water at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed.

4. And also in regards to the institutional controls, we also have a concern that the controls only apply to the ponds themselves. They do not apply in the refuge area, which we understand; but our concern is we question the ability to have groundwater wells in the refuge area. I know that's a water right issue, but that also needs to be addressed or at least usage needs to be included in the document as to if groundwater wells or surface water usage will be allowed downstream of our ponds.

The Peripheral OU will be transferred from DOE to USFWS (in large part), and will become the Rocky Flats National Wildlife Refuge. The RI found that conditions in the Peripheral OU, including groundwater quality, were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Plans for use of groundwater by USFWS in the Refuge are beyond the scope of this CAD/ROD; however, information on Refuge management may be found in the CCP for the Rocky Flats National Wildlife Refuge prepared by USFWS.

5. Another concern that we have, I know it doesn't deal with that also is with less water in the ponds. When we're talking about discharging post closure, we may go years without any water in the ponds. So we're asking-- again, this is a stewardship issue-that at least annually they support us in monitoring the ponds even without a discharge so we can actually have data to reflect the actual physical status of the site. We continually get calls from citizens, and it always helps if we have data to do that.

The CAD/ROD mandates that DOE continue surface water monitoring at the POCs at the discharge points from the three terminal ponds, and that DOE continue to monitor water entering the ponds at the existing POEs. In addition, DOE intends to continue its current best management practice of taking pre-discharge samples from the ponds prior to releasing water from them. These samples will continue to be split with CDPHE, and results will be shared with downstream communities, consistent with current practice.

6. And we also would like language added to that that Broomfield, also in conjunction, would also like to perform sampling at the same time. That's all I have for now.

The CAD/ROD states that the environmental monitoring, as well as the monitoring that will be included in RFLMA, is adequate to ensure continuing protectiveness of the remedy. Therefore, the CAD/ROD requires no additional sampling.

7. On Slide 7, Institutional Controls, O&M and monitoring embodied in a post-RFCA enforceable agreement will be addressed; and I support Shelley on her comments. And I just want to ensure – be assured that the post-RFCA will be a public comment document. We haven't – that hasn't been confirmed with us and that truly is a concern with the city, especially the downstream communities.

The RFLMA will undergo a public review and comment process, including a formal public comment period.

8. And previously for several years, especially the state, has always committed that in the final document we would have a map of the site showing where residual contamination was remaining. And the plan was silent on that, and we still have yet to see that, specifically to identify where no residual contamination is including the basements that were left in place and areas over by 779 and-- processed lines. The processed lines is what she said. Basically that's a digital contamination that's known. It would be very helpful for us in the future postclosure in case there are any issues, at least we'd have a map we'd be able to go to.

DOE is developing a map or maps to address your comment.

9. Again, the administrative record still isn't operating, and we'd just like confirmation that the College Hill Reading Room will be open until we can be assured that it is available electronically. We, for months, have been informing the RCRA parties it's not working. And one of the key issues of that is the older documents have been scanned in, and the documents are in black and white, and they're of no value to us if we can't read them; so if you could work with us on that.

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public affairs office for the Rocky Flats Site. The future of maintaining the reading room at the College Hill Library at the Front Range Community College will be determined during the

upcoming 5-year CERCLA review of the Site.

Letter from the City of Westminster dated September 13, 2006

1. We formally request that our comments in Attachment A be dispositioned specifically and individually and <u>not generalized with other public comments</u>.

All comments are being specifically and individually addressed.

2. We also formally request an individual meeting with the RFCA Parties to address our comments prior to the release of the CAD/ROD.

Any meetings that occur as a part of the CERCLA public comment process must occur for the general public's benefit. CERCLA does not allow meetings during the process with individual organizations.

It is very difficult to evaluate the Proposed Plan and the preferred alternative without knowing the technical and regulatory details of the post-RFCA. Previously, Broomfield has been asked to evaluate RFCA Party proposals prior to their release to the public. Draft documents have always been released to us prior to public review. We do not understand the need for concealment of this critical document, nor do we understand the change in policy to keep downstream asset holders from participating in drafting language that protects our communities and fiscally preserves our assets. We reserve the right to readdress our comments and concerns identified in this letter once we have an opportunity to evaluate the language in the post-RFCA. It is essential that the post-RFCA document be released to the public for comment with a minimum of 60 days for review. Past practice for formal review of the RFCA documents should justify a formal review of the final post-RFCA or any other post-closure document.

See specific responses to detailed comments below.

4. 1. Involvement with Downstream Asset Holders.

Municipalities impacted by surface water from the RFETS shall be part of the technical process to evaluate and develop monitoring specifications for the post closure monitoring and maintenance plan. DOE will hold quarterly data exchange meetings to review data, evaluate trending, analyze sampling needs and/or discuss corrective actions with impacted municipalities.

See specific responses to detailed comments below.

- 5. 2. Long-term Monitoring and Surveillance Plan.
- **a. Groundwater**-Stationary groundwater plumes require continued periodic monitoring to demonstrate that they are remaining stationary and do not pose a risk.
- **b. Surface Water**-the RFCA states following completion of active remediation, the surface water must be of sufficient quality to support any surface water use classification. With active remediation completed, we expect DOE to adhere to the underlying stream standards when the temporary modifications expire in 2009.
- **c. Integrated Monitoring Plan Process** This critical process must continue post-closure to periodically reassess site conditions and revise the on-site and off-site monitoring systems accordingly.

See specific responses to detailed comments below.

6. **3. Institutional and Access Controls/Proposed Central Operable Unit Boundary.** The document is silent on physical controls and Institutional Controls for the Points of Compliance. The RFCA parties committed to generate a final map of the site after the completion of the closure project to reflect the remaining residual contamination at the site. These two items need to be addressed. A fence around the Central OU should be an enforceable control, not just a best-management practice.

See specific responses to detailed comments below.

7. **4. Original Landfill and Present Landfill.** Monitoring must continue until there is sufficient data to ensure both groundwater and surface water quality are not impacted from the Original Landfill and to confirm the integrity of the cover. Current seeps that have developed in the cover have the potential to release contaminants directly into Woman Creek. The Present Landfill is currently discharging contaminants into No Name Gulch that exceed the surface water standards. The Present landfill pond should not be in a pass-through mode if the water quality does not meet the surface water standards.

See specific responses to detailed comments below.

8. **5. 991 Area.** This area is experiencing severe subsidence.

See specific responses to detailed comments below.

We disagree with the RFCA Parties' position that this unstable area is not a CERCLA issue. The area has groundwater wells located in it to monitor groundwater plumes. The functional channel is experiencing uplifting and we are very concerned with the potential for mass loading of sediments into South Walnut Creek.

## 9. 6. Treatment Units/Remedial Action Objectives.

**a. Treatment Units.** We disagree with the statement in the Proposed Plan and the RI/FS stating: Continued operations of these four systems serves to protect surface water quality over short-andlong intermediate-term period by removing contaminant loading to surface water. This protection also serves to meet long-term goals for returning groundwater to its beneficial use of surface water protection. The Solar Pond Treatment Unit and the Present Landfill Treatment Unit as of today do not meet all of the surface water standards. The temporary standard expires in 2009 and we do not have assurances from DOE that the standard will be obtained to minimize the nutrient mass loading to Walnut Creek.

**b. Remedial Action Objectives.** The remedial action objectives are the foundation of the clean-up actions. We clearly understand if the objectives are not mechanisms such as institutional controls to ensure protection of public health and the environment. The plan lacks the details of the implementation, oversight, enforceability, and reporting of the controls effectiveness and/or deficiencies.

See specific responses to detailed comments below.

## 10. 7. Administrative Record and Reading Room

a. Administrative Record. The electronic version of the administrative record continues to have access problems. CERCLA, section 113 requires that an administrative record be established "at or near the facility at issue." The record is to be complied contemporaneously and must be available to the public and include all information considered or relied on in selecting the remedy, including public comments on the proposed plan. We ask that all maps in the record be in color to be of value to our

See specific responses to detailed comments below.

b. Reading Room. We request the Reading Room be maintained until we are assured the administrative record is accessible and functioning. Legacy Management has committed to work with us in the decision making process to determine the best location for the administrative record.	
<ul> <li>11. 8. De-listing the Site, Land Transfer, and Natural Resource Damage Evaluation</li> <li>a. De-listing. The Proposed Plan lacks the details of the process to de-list and certify the site prior to transferring lands to the Department of the Interior.</li> <li>b. Land Transfer. The proposed Plan lacks the details of the land transfer. Our concern with the land transfer is the application of institutional and physical controls in both operable units.</li> </ul>	See specific responses to detailed comments below.
12. <b>9. Public Involvement Plan.</b> The City and County of Broomfield and Westminster were the only public members to comment on the Public Involvement Plan dated October 2006. We ask the document be revised to include the current notification process, communication process, and continuation of the quarterly data exchange meetings in addition to the LSO briefings.	See specific responses to detailed comments below.
13. <b>10. Post-Rocky Flats Clean-up Agreement and 5-year Review.</b> We expect language in the post-RFCA to maintain the current role DOE has with downstream communities. The post-RFCA should as a minimum include the details of the enforceability of the surface water standards, a continuation of the Water Working Group, Attachment 1 list of analytes, ICs, notification, public participation plan, and other key factors related to long-term stewardship.	See specific responses to detailed comments below.
14. We request that you disposition this document with us prior to the release of the final approved CAD/ROD.	See specific responses to detailed comments below.

15.	There is not a clearly defined plan and procedure for	See specific responses to detailed comments below.
instit	utional and physical controls.	
16.	The record and data management system has to be in place	See specific responses to detailed comments below.
and f	<u>Functioning prior to delisting.</u>	
17.	Language needs to be added to the plan as a commitment to	See specific responses to detailed comments below.
down	nstream communities to provide a role for us post-closure	
regar	ding water management.	

1.1.1 For years the City and County of Broomfield and the City of Westminster have had an integral role with the development of monitoring criteria during technical group discussions to implement changes to the monitoring plans at the site. Our role was clearly delineated in the RFCA and detailed in the Integrated Water Management Plan for the Rocky Flats Environmental Technology Site, dated August 1996. The Water Working Group's purpose as stated in the RFCA, Appendix 5, is to develop consensus recommendations to the decision-makers regarding decisions and actions related to water quality at, or downstream of RFETS. These discussions identified the needs and changes in monitoring scope as dictated by changes in the Rocky Flats Environment Technology Site operations and infrastructure. In addition, the working group was tasked to work towards a longterm stewardship monitoring system that would continuously evaluate and support data quality objectives. Revise the Proposed Plan to include language that local municipalities impacted by surface water from the RFETS shall be part of the technical process to evaluate and develop monitoring specifications for the postclosure monitoring and maintenance plan and develop consensus recommendation to the decision-makers post-closure.

DOE appreciates the long history of public involvement at Rocky Flats. Implementing agreed-upon post-closure monitoring and maintenance will be addressed in the RFLMA, which will be subject to public review and comment.

19. 1.1.2 The Proposed Plan refers to the Long-term Surveillance and Maintenance Plan (LTSMP) as the document that identifies the long-term stewardship criteria. We were very

An LTS&MP has not been issued and is not part of the Proposed Plan. Specifics of post-closure long-term surveillance and maintenance activities will be addressed in the RFLMA. The final

disappointed when Legacy Management decided to not adhere to the Public Participation Plan that identified the Interim Long-term Surveillance and Maintenance Plan as a public document to be released for our review and evaluation. To this date we have not received justification from Legacy Management as to why they deviated from their document and the RFCA to include participation of the Water Working Group to maintain and guide a long-term partnership between local governments, DOE, EPA, and CDPHE. Revise the document to state the LTSMP will be reviewed annually with the current partnership between DOE, EPA, CDPHE, and downstream municipal water users.

IS&MP was released to the public in December, 2005 and is available on the Legacy Management website at <a href="http://www.lm.doe.gov/land/sites/co/rocky\_flats/rocky.htm">http://www.lm.doe.gov/land/sites/co/rocky\_flats/rocky.htm</a> .

20. 1.1.3 The Plan is silent on the enforceability of the Points of Compliance at Indiana, the groundwater wells at Indiana, and the ability for the regulators to have an oversight role for the monitoring stations outside of the DOE retained lands. When lands are transferred from DOE to the Service, will the regulators have the ability to enforce surface water quality and groundwater quality in areas outside of their responsibility that are located within the outer peripheral unit?

The CAD/ROD mandates that DOE retain POCs in surface water at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed. The Refuge Act provides for continuing regulatory authority in the DOE retained lands and the refuge lands. Enforceability will be included in the RFLMA.

21. 1.2.1 The City and County of Broomfield and Westminster for years have teamed with the RFCA Parties to exchange data, evaluate trending, and develop data quality objectives. These crucial decisions and recommendation were developed within the framework of the Water Working Group. In addition, monitoring data generated by all involved parties were exchanged to evaluate the generated data and monitoring systems. It is very important to evaluate trends in data to determine the optimum locations for the monitoring system post-closure. The City and County of Broomfield will continue to generate surface water data post-closure and evaluate the impacts to Walnut Creek and Big Dry Creek. The City of Westminster and Northglenn will also continue to evaluate the impacts to Woman Creek and Big Dry Creek.

The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public. An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD states that the environmental monitoring, as well as the monitoring that will be included in RFLMA, is adequate to ensure continuing protectiveness of the remedy. Therefore, the CAD/ROD requires no additional sampling.

Westminster reserves the right to monitor surface water postclosure at the site and at the site boundary.

22. 1.2.2 We understand there may not be surface water discharges from the terminal ponds for several years, but quarterly monitoring will continue at the site and it will need to be reviewed and discussed. The Proposed Plan refers to the LTSMP. The LTSMP clearly excludes the continuation of the current process to discuss technical issues associated with the monitoring and surveillance systems at the site. Revise the Proposed Plan to specify quarterly data exchange meetings will be held with DOE, CDPHE, downstream municipalities, and EPA if they have an available representative, to review data, evaluate trending, analyze sampling needs, and/or discuss corrective actions. We expect the quarterly data exchange meetings to be in addition to any briefing by Legacy Management presented to the Local Stakeholder Organization.

The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public. An LTS&MP has not been issued and is not part of the Proposed Plan.

23. 1.2.3 We remind Legacy Management of their August 11, 2004 commitment made to downstream municipalities to continue the quarterly data exchange meetings with our communities for a minimum of two years. Based on this commitment, the language in the Plan should reflect, as a minimum, the commitment to downstream municipalities.

DOE intends to continue to interact with all interested parties and stakeholders. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public. An LTS&MP has not been issued and is not part of the Proposed Plan.

24. 1.2.4 On September 11, 2006, Mike Owen committed to open communication with local governments. This commitment is a confirmation by Legacy Management to continue the much-needed quarterly data exchange meetings with downstream communities to continue to evaluate an integral monitoring plan.

DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

25. 1.3.1 Our short-term goals during the Quarterly Data Exchange meetings were to ensure a safe, timely cleanup while working toward protecting surface water quality. Our long-term goals were to have a detailed long-term stewardship plan to protect surface water quality that impacts us as downstream communities. The open communication process and the notification process also served to strengthen our ability to resolve issues. The document refers to the Public Involvement Plan and this involvement plan clearly does not maintain the current open communication and notification process. Rather than remaining silent on direct communication and notification with our communities, we ask the document be revised to incorporate the previous notification and communication process as identified in our letter to Audrey Berry, dated September 16, 2005.

DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

26. 1.3.2 The current communication process with downstream communities should not be intended to replace the public process with the Rocky Flats Stewardship Council (RFSC), but instead be in addition to the public involvement plan identified by Legacy Management.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

27. 1.3.3 The City and County of Broomfield and the City of Westminster have had several meetings with the RFCA Parties to address the importance of maintaining the same communication process and notification process with our municipalities. We have drafted several letters addressing the specifics of long-term stewardship and our role to fulfill our responsibilities to our citizens and businesses. Please refer to our most recent letters to Mike Owen dated December 6, 2005, letter to Audrey Berry dated September 16, 2005, and letter to John Rampe dated January 2004. In addition, we have been the only two communities that have

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield,

individually commented on all the documents the RFCA Parties have released during the cleanup project. We have invested hundreds of hours evaluating remedy proposals and strived to bring forward resolutions to meet both our needs and Doe's needs. These letters reflect the importance of this project to our communities. Revise the Proposed Plan to reflect our role post-closure to ensure our future role is codified in Legacy Management post-closure documents.

Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

- 28. 2.1.1 Broomfield understands the specific groundwater plumes that were evaluated in the approved RI/FS and the basis for the potential pathway analysis for contaminants to impact human health and the environment. The items evaluated were:
  - Five upper hydrostratigraphic unit groundwater areas where contaminated groundwater may impact surface water;
  - Upper hydrostratigraphic unit groundwater sampling locations where groundwater contamination exceeds maximum contaminant levels; and
  - Groundwater sampling locations where exceedances of volatilization PRGs in groundwater indicate a potential indoor air risk

What the document is lacking is the process to evaluate stationary groundwater plumes and their potential risk long into the future in the event they migrate or a new pathway is created. We understand the stationary plumes do not pose a risk based on current data, yet the RI/FS and the Proposed Plan do not take consider the need to continue monitoring stationary plumes post-closure in the event hydrological conditions change. The RI/FS states these plumes *do not require further studies to evaluate risk to human health and the environment* and we agree with this statement based on current data. Revise the document to state in the event stationary plumes begin to migrate, a risk evaluation will be performed for the contaminant or contaminants of concern. Revise the document to also include the process to evaluate the risk. Include impacted

The RI/FS evaluated all groundwater constituents to determine analytes of interest (AOIs). The AOIs that formed contiguous, mapable plumes were further evaluated to determine their potential to impact surface water. The potential impacts of groundwater discharge to surface water were evaluated at the Area of Concern (AOC) and Sentinel wells which were selected by the Water Working Group regardless of whether the groundwater plumes are retreating, migrating or stationary (i.e., at steady state). The evaluation results indicated that AOIs in five groundwater areas have the potential to impact surface water based on results at the AOC and Sentinel wells and/or contaminant transport model predictions.

There is a process identified to evaluate steady-state groundwater plumes in the Fiscal Year 2005 Integrated Monitoring Plan, Revision 1, dated September 2005 (IMP), which identifies AOC, Sentinel, and Evaluation wells. These wells are located so that they will detect potential changes in the groundwater plume configurations at the site whether they are currently considered to be in steady state or migrating downgradient. If groundwater monitoring results show statistically increasing trends at the AOC, Sentinel, or Evaluation, the IMP requires more frequent monitoring and evaluations for action, if deemed necessary. Since the water quality standards used for evaluation are deemed to be protective of human health and the environment and statistically significant impacts to water quality will be evaluated per the IMP, it is not

communities in the process to determine the monitoring needs postclosure. necessary to revise the document to include a risk evaluation. Postclosure monitoring, identified in the IMP, will be implemented through the RFLMA, which will be offered for public review and comment.

29. 2.1.2 Revise the documents to reflect language in the RFCA Attachment 5, C.2 stating:

Groundwater plumes that can be shown to be stationary and do not therefore present a risk to surface water, regardless of their contaminant levels, will not require remediation or management. They will require continued monitoring to demonstrate that they remain stationary.

Based on the changes to the topography and potential hydrology at the site, Broomfield and Westminster believe there needs to be sufficient monitoring to determine if the groundwater plumes remain stationary and do not pose a risk. The RI/FS does not address future evaluations for all identified groundwater plumes. The process outlined within the RI/FS does not evaluate impacts to the creeks holistically.

The IMP identifies sufficient monitoring for all groundwater plumes (whether they are in steady-state or migrating) and contains a systematic process for evaluations and potential actions if statistically increasing contaminant trends are observed. Where possible, the future impact of groundwater plumes on surface water were evaluated in the RI/FS using contaminant fate and transport modeling. Modeling was performed for the significant volatile organic compound plumes to predict their future impact on surface water quality. Contaminant fate and transport modeling was not conducted for the metal AOIs because the metal plumes are limited in areal extent and do not currently pose a threat to surface water. Uranium was also not modeled because the primary uranium plume at the site, which occurs in the area of the Solar Evaporation Ponds, is already entering North Walnut Creek and the water quality impacts are well known. A groundwater interception and treatment system is already installed in this area. Post-closure surveillance and maintenance activities will be addressed in the RFLMA, which will be subject to public review and comment.

- 30. 2.1.3 Revise the document to state all exceedances of groundwater action levels shall be reported to downstream communities once DOE becomes aware of the data. In addition, the data shall be reported quarterly and summarized annually to all parties, including downstream municipalities. Revise the document to add "downstream communities" to the notification and communication process identified in the Plan.
- 31. 2.1.4 All groundwater plumes that exceed action levels must continue to be monitored until the need for institutional controls is mitigated. Revise the document to include the process on implementation of institutional controls. Define how institutional

The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

The CAD/ROD states that institutional controls will be maintained until the concentrations of hazardous substances in soil and groundwater are at levels so as to allow for unrestricted use and unlimited exposure, and/or until such time as engineered

controls will be implemented, how they will be evaluated, how often they will be evaluated, and by whom. Any information associated with institutional controls should also be relayed to the public and downstream communities. Once again, with ICs in the outer peripheral unit, we are not clear on the regulatory process in this area.

components of the remedy are no longer needed. DOE will be responsible for maintaining institutional controls. DOE will inspect the site relative to institutional controls no less than annually, and the CAD/ROD contains specific timeframes for addressing and reporting activities that are inconsistent with the objectives of the institutional controls. Institutional controls will be addressed in the regular reporting that will be made available to the public and will be evaluated in CERCLA periodic reviews. Conditions in the Peripheral OU are such that they allow for unrestricted use and unlimited exposure. Therefore, no institutional controls are needed for the Peripheral OU.

32. 2.1.5 Any revisions or justifications to change the standard/action levels for groundwater shall be based on the surface water use classifications and not jeopardize surface water quality. Impacted municipalities should be part of the decision-making process to reevaluate any proposed changes. Per RFCA, the temporary modifications were developed *together with other stakeholders* (*i.e.*, *the local municipalities that are impacted by surface water from the RFETS*). Without knowing the specific language in the post-closure document, we ask language be incorporated and codified in Proposed Plan to ensure municipalities are included with any decision made at the Rocky Flats site that may impact surface water. Any modification or changes to the stream standards shall include downstream municipalities.

All rulemakings held by the Colorado Water Quality Control Commission related to use classifications, standards, or temporary modifications in Big Dry Creek have included and in the future are expected to include downstream communities. The rulemaking process allows for participation in the rulemaking as parties or as non-parties, and for the submission of written or oral testimony.

33. 2.1.6 Broomfield and Westminster are concerned the Proposed Plan does not address any institutional controls to prevent siting groundwater wells in the refuge to be used for irrigation or for other uses. The Proposed Plan states: the construction or operation of groundwater wells is prohibited; except for remedy related purposes. Revise the document to clarify the process to site a groundwater well in the refuge in the event a well is needed to evaluate the potential migration of a groundwater plume.

The Peripheral OU will be transferred from DOE to USFWS, and will become the Rocky Flats National Wildlife Refuge. The RI found that conditions in the Peripheral OU, including groundwater quality, were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Plans for use of groundwater by USFWS in the Refuge are beyond the scope of this CAD/ROD; however, information on Refuge management may be found in the CCP for the Rocky Flats National Wildlife Refuge prepared by USFWS.

The Refuge Act allows siting monitoring wells in the refuge and provides for DOE's access. DOE will be required to maintain and protect any wells to ensure that they continue to function as designed. Requirements for monitoring wells will be included in the RFLMA.

34. 2.1.7 Figure 3 of the Proposed Plan identifies the Rocky Flats Operable Units, i.e., DOE-retained lands and the refuge area. Figure 2 of the Proposed Plan identifies the groundwater and surface water monitoring locations. Revise the document to include an overlaid map of the two above-mentioned maps to reflect the location of the monitoring stations in relation to the boundary.

Figure 10.1 of the RI/FS shows the relationship of the Central Operable Unit (OU) boundary relative to the IMP groundwater monitoring wells (AOC and sentinel wells) and surface water monitoring locations (Point of Compliance [POC], Point of Evaluation [POE], and Point of Measurement [POM]). All of the AOC, Sentinel, and Evaluation wells are located in the Central OU. The POCs located downgradient of terminal ponds (GS11, GS08, and GS31) are located adjacent to the eastern (downstream) edge of the Central OU. The background surface water monitoring station (GS05), the POCs at Indiana Street (GS01 and GS03), and the boundary wells (41691 and 10394) are located in the Peripheral OU.

35. 2.1.8 We are very concerned the document does not address if or how institutional controls would apply to boundary wells. Revise the document to state ICs will apply to the boundary wells. Revise Figure 3 to include a delineation of the groundwater boundary wells. The Plan should also include a statement that the land/area the wells are located in will be retained by DOE.

Boundary wells are not required by the CAD/ROD. Although boundary wells are not located within the DOE-retained lands, the Refuge Act provides for DOE's access to them, and DOE will be required to maintain and protect these wells to ensure that they continue to function as designed. Requirements for monitoring at the boundary wells will be included in the RFLMA.

36. 2.1.9 Revise the document to state how the groundwater wells will be secured and identified. We expect to have a fence around the perimeter of the groundwater wells that are located outside of the DOE-retained lands. These wells have to be clearly marked and labeled to prevent public access and intrusion. As a minimum, a fence should be placed 10 feet out from the monitoring well. In addition, the fence should be legal control fence.

AOC, sentinel, and evaluation wells are located within the Central OU and are within the boundaries of the DOE-retained lands. Monitoring wells that are outside the DOE-retained lands will be protected and maintained, which will be described in more detail in the RFLMA.

37. 2.1.10 Telemetry is not a sufficient tool to be used as an indicator that a well has been vandalized. Freezing conditions could impact the telemetry system. The telemetry could serve as a layering method to protect the groundwater wells in the event other controls fail to protect the monitoring systems.

DOE agrees that telemetry is not a sufficient tool to assess whether a well has been vandalized, or to indicate other types of failure at a well. There is not currently, nor has there historically been telemetry at any of the groundwater wells. Visual of the wells are conducted at least semi-annually during sampling events. DOE will continue to protect the functionality of the wells included in the LM post-closure monitoring system.

38. 2.1.11 The fence for the boundary wells should be identified as a legal control to protect the monitoring system for the remedy. Layering is of utmost importance in the event one control fails. The need to protect these wells is founded on the importance to gather groundwater data to evaluate the remedy.

DOE will be required to maintain and protect these locations to ensure that they continue to function as designed. Specific groundwater monitoring requirements, including any boundary wells, will be addressed in the RFLMA.

39. 2.1.12 The document refers to the Long-term Surveillance and Monitoring Plan. Revise the document to state all groundwater monitoring data and any changes in hydrologic conditions will be reported quarterly and summarized annually to all parties and impacted municipalities. Any exceedances of groundwater action levels will be reported to all parties and impacted municipalities concurrently. Once changes or physical conditions exist that could impact surface water quality, downstream municipalities should be notified via telephone or fax.

An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication.

40. 2.1.13 The RI/FS does not address the evaluation of groundwater that discharges directly to surface water as baseflow, specifically groundwater entering North Walnut Creek from the discharge gallery. The document is silent on direct impacts to the creeks and only addresses an evaluation of groundwater to surface water at the Points-of-Compliance. To measure impacts after dilution occurs at the Points-of-Compliance (POCs) may not be an accurate evaluation of direct impacts to the streams and human health and the environment. We understand the remedial action objectives are used to develop and evaluate remedial alternatives. However, we do not agree it is appropriate to use the creeks and

The potential impacts of contaminated groundwater on surface water quality were evaluated in the RI/FS and considered in the Proposed Plan. The effectiveness of the groundwater system is evaluated through discharge sampling and during periodic monitoring, inspections and maintenance activities. The remedy does not assume that the creeks or ponds treat or dilute surface water.

ponds as a method to dilute/treat surface water. It may appear inaccurate to measure the effectiveness of the treatment units if the risks are evaluated at the terminal ponds and the POCs rather than measuring the water quality as it enters the creek or ponds.

41. 2.2.1 Temporary modifications were developed together with local municipalities that are impacted by surface water from the RFETS. Broomfield reminds DOE that RFCA states *following completion of active remediation, the surface water must be of sufficient quality to support any surface water use classification in both Segments 4a/4b and 5.* Revise the Proposed Plan to state any temporary modifications will revert to the stream standards once the final remedy has been completed. We expect DOE to adhere to the stream standards once the temporary standards expire in 2009. Our intent was to allow less stringent standards during the cleanup. DOE should be adhering to the stream standards now that the remedy has been completed. Revise the Proposed Plan to include language identifying the procedure and schedule DOE has in place to adhere to the surface water standards by 2009.

The remedy for groundwater is not complete. It will be complete when all three of the Groundwater RAOs and the Surface Water RAO are met. The remedy – in the form of groundwater treatment systems and continued monitoring – has been put in place. DOE will continue to monitor groundwater and surface water with the goal of achieving the underlying surface water standards when the temporary modifications expire in 2009. More information on the temporary modifications and completion of the remedy at Rocky Flats may be found in the docket of the 2004 Water Quality Control Commission's Rulemaking on Regulation No. 38, to which the Cities of Broomfield and Westminster were parties.

42. 2.2.2 Revise the document to state how the institutional controls will apply to the surface water monitoring stations inside and outside of the DOE retained lands.

DOE will be required to maintain and protect these locations to ensure that they continue to function as designed. Per the Refuge Act, DOE may access any areas, whether in the Central OU or Peripheral OU, required for monitoring or remedy purposes.

43. 2.2.3 Revise Figure 3 to include a delineation of the surface water monitoring stations. The Plan should also include a statement that the land/area the surface water stations are located in will be retained by DOE.

DOE is developing a map or maps to address your comment. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed. Per the Refuge Act, DOE may access any areas, whether in the Central OU or Peripheral OU, required for monitoring or remedy purposes.

44. 2.2.4 Define how the institutional controls will be implemented for the use of surface water, how they will be evaluated, how often they will be evaluated, and by whom. Any information associated with institutional controls should also be

Signage, federal ownership, and an environmental covenant issued to the State of Colorado are the specific physical and institutional controls to be used to ensure the protection of surface water from unauthorized uses. Implementation of the physical and institutional

relayed to the public and downstream communities. We are specifically interested in the application of ICs at the POCs at the boundary.

controls will be inspected periodically by DOE, corrected or repaired if required, and reported in an annual report. These control, inspection, and reporting actions are listed in the Proposed Plan for Alternative 2, the Preferred Alternative. Approval of the CAD/ROD will establish these proposed actions as binding regulatory requirements for DOE. More detailed information describing how DOE will meet the requirements of the CAD/ROD will be written in the RFLMA. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

2.2.5 Broomfield is concerned the Proposed Plan does not address any institutional controls to prevent the use of surface water for drinking or irrigation in the refuge area. The Proposed Plan states: *surface water above the terminal ponds may not be use* for drinking water or agricultural purposes. Surface water is discharged into Walnut Creek and Woman Creek from the DOE retained land and eventually flows downstream to the POCs. It does not seem logical to enforce ICs in an area with no public access yet have no ICs where the public will have access to the drainages and monitoring stations outside of the DOE retained lands. The drainages and creeks could be an inviting water hole for horses when the refuge allows horseback riding on the south side of the site. We understand there will be designated trails for the horses, but there needs to be a legal control to prohibit the use of surface water flowing to the POCs. We strongly support the refuge and its future activities, but we have reservations about the lack of application of the identified controls in the Proposed Plan. Revise the document to state the surface water monitoring stations outside of the DOE-retained lands will be managed consistently with the surface water monitoring stations within the DOE-retained lands.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Future incidental use of surface water in the refuge area as you described similarly poses no threat and no controls are required. The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. The CAD/ROD requires DOE to maintain and protect these locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU.

46. 2.2.6 Revise the document to identify how the institutional

The suggested revisions are inappropriate for the Proposed Plan,

controls will be enforced and the schedule to implement corrective actions in the event a control fails.

which develops broad alternatives for remedial action. Approval of the CAD/ROD will select the alternative and establish the requirements to implement that alternative. More detailed information describing how DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the RFLMA. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

47. 2.2.7 Revise the document to state a legally mandated fence will be constructed around the perimeter of the surface water monitoring stations outside of the DOE-retained lands. These surface water monitoring stations should be clearly marked and labeled to prevent public access and intrusion. As a minimum, a fence should be placed 10 feet out from the monitoring stations.

The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU.

48. 2.2.8 The fence for the surface water monitoring stations outside of the DOE-retained lands and the fence around the DOE retained lands should be identified as a legal control in the Proposed Plan to protect the monitoring system for the remedy. Layering is of utmost importance in the event one control fails. The need to protect these surface water monitoring stations is founded on the importance to gather surface water data to evaluate the remedy and protect surface water quality downstream of Rocky Flats.

DOE will be required to maintain and protect surface water monitoring locations outside of the DOE-retained lands to ensure that they continue to function as designed. The concept of layered controls is embodied within the selected remedy for the Central OU, however not in the form of layered fences. The layered controls include a signs as a required physical control, ongoing ownership by DOE to prevent digging, water usage, and other prohibited activities, routine presence and observation by DOE and contractor staff, and an environmental covenant with the State of Colorado restricting use of the Central OU in perpetuity.

49. 2.2.9 The document refers to the Long-term Surveillance and Monitoring Plan. Revise the document to state all surface water monitoring data will be reported quarterly and summarized annually to all parties and impacted municipalities. Any changes in concentrations or exceedances of surface water action levels and/or standards should be relayed concurrently to impacted

An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made

municipalities and the regulators. Once changes or physical conditions exist that could impact surface water quality DOE should notify downstream municipalities concurrently with the regulators.

available to the public.

50. 2.2.10 The Long-term Surveillance and Monitoring Plan is referred to in the Proposed Plan as the document that identifies the monitoring and surveillance post-closure. As written in the LTS&M Plan, surface water quality in the terminal ponds will be measured only when there is a pond discharge. As identified in the LTS&M Plan, the ponds will be discharged when they are at 40% capacity. Based on modeling to predict the amount of surface water flowing at the site post-closure, there will be far less water entering the ponds. With the new configuration of the site, it could be years before the ponds would require a discharge. To effectively evaluate the remedy, the water quality in the terminal ponds or an identified location at the site should be performed annually as a minimum. Revise the document to state as a minimum the terminal ponds on Walnut Creek will be sampling annually for analytes identified in Attachment 5 of RFCA. Woman Creek is unique in that not all the runoff of surface water is captured in C-2, therefore language should be added to the Plan for Legacy Management to work with Westminster and the Woman Creek Reservoir Authority to identify a location that accurately reflects the effectiveness of the remedy on the south side of the site.

An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD. Regarding the commenter's request for a new monitoring location on Woman Creek, the RFCA parties worked with the communities in establishing the current monitoring locations. A primary purpose of the agreed upon monitoring network was to assure adequate information would be collected for remedy evaluation. No new location will be sited at this time. The entire monitoring system is subject to ongoing review so that locations and analytes can be dropped or added as conditions warrant.

51. 2.2.11 The City and County of Broomfield and the City of Westminster understand the potential for the ponds to require additional discharges during wet seasons and wet years. Revise the Proposed Plan to include the following language:

The Surface Water and Groundwater Working Group will be tasked to develop an Integrated Water Management Plan to develop a consensus recommendation to the decision-makers regarding decisions and actions related to water quality at, or downstream of The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD. Therefore, a Surface Water and Groundwater Working Group and an Integrated Water Management Plan are not required.

RFETS. The group will identify actions necessary to protect water quality and the watershed and recommend programmatic activities to effectively manage water resources. The group will provide a comprehensive management tool to identify the actions to take regarding pond management. This tool will maintain and guide a long-term partnership between local governments, DOE, EPA, and CDPHE. The goal of the group will be to provide a comprehensive management tool to implement DOE's long-term commitment for protecting water and related ecological resources.

It is imperative to include this language within the body of the Proposed Plan and the CAD/ROD to ensure a comprehensive water management plan is developed based on diminished flows, protection of ecological resources, and application of institutional controls necessary to protect water for all uses.

52. 2.2.12 Revise the document to include language the City and County of Broomfield will sample surface water quality during a discharge into Walnut Creek and we reserve the right to sample surface water quality on an annual basis to determine surface water quality within the terminal ponds on Walnut Creek.

The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD.

53. 2.2.13 Revise the document to include language the City of Westminster and/or the Woman Creek Authority reserves the right to sample surface water quality on an annual basis to determine surface water quality within the C-2 terminal pond or specified location on Woman Creek.

The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD.

54. 2.2.14 Broomfield and Westminster have stated the need for a comprehensive long-stewardship plan since October 4, 1996. We are very disappointed that throughout the cleanup process the details of the long-term stewardship plan were deferred to numerous unwritten documents. We believed the Proposed Plan

The purpose of the Proposed Plan was to identify DOE's preferred final remedy for RFETS and to provide the rationale for the preference. The preferred remedy for Alternative 2 includes clearly defined monitoring and surveillance requirements. These requirements are based on specific monitoring and O&M

would be the critical document that would include the details and implementation of a long-term stewardship plan. The plan as a minimum was to identify the implementation and enforceability of institutional controls, have a clearly defined monitoring and surveillance plan that was developed with downstream municipalities input, include a statement identifying our role post-closure, and include a risk assessment based on effective engineered controls that were evaluated at the point effluent enters water of the state.

requirements for the 5 ongoing actions (that is, the Original and Present Landfills and the three groundwater treatment systems) as well as additional targeted ecological sampling based on results of the ERA and surface and groundwater monitoring as described in the FY2005 IMP, dated September 8, 2005. The FY2005 IMP was developed with downstream municipalities input.

Institutional controls that are part of the preferred remedy are described in the Proposed Plan and are included in the CAD/ROD. The CAD/ROD identifies the RFLMA as the enforceable document for the institutional controls.

55. 2.2.15 We are also very disappointed that at the Public Hearing held on August 31, 2006 we were informed we could not address long-term stewardship issues. The statement in itself was in contradiction to the Proposed Plan that offered institutional and physical controls as two of the three identified alternatives. Without knowing the specifics of the final controls associated with the alternatives, we have reservations about the long-term effectiveness and enforceability of a long-term stewardship plan. If our comments are not considered, we may have to support Alternative 3 rather than Alternative 2 once the final CAD/ROD is released.

The Public Hearing conducted on August 31, 2006 was to gather comment from the public on the Proposed Plan. It was a formal hearing conducted in accordance with regulatory guidance, including use of a facilitator and court reporter to ensure verbatim transcription of oral public comments. Both the CAD/ROD and the Proposed Plan note that the CAD/ROD will be implemented through an enforceable agreement among DOE, EPA and CDPHE, known as RFLMA. RFLMA will contain additional details regarding long-term activities at Rocky Flats, and will be made available for formal public comment.

56. 2.2.16 The effectiveness of a long-term stewardship plan that protects surface water quality can only be strengthened through open communication among all affected parties. We have not been asked to participate in the drafting of the post-closure document to ensure an effective plan is drafted before it is finalized. Our participation would only serve to strengthen the success of a stewardship plan that our communities will accept and support.

DOE, EPA and CDPHE agree that open communications among all affected parties is important to the success of long-term activities at Rocky Flats. To that end, the communities and other stakeholders have been extensively involved in the remedy evaluation and selection process. As examples, the draft RI/FS report was released for public information in October 2005, and the agencies held several informational meetings with community representatives to discuss the report. Three informational meetings were held on the Proposed Plan itself, one prior to and two during the public comment period, in advance of the public hearing. Beyond that, DOE, EPA and CDPHE have engaged in extensive

public dialogues over the years on long-term stewardship issues through a number of venues including the Stewardship Working Group, which was a joint effort between the Rocky Flats Citizens Advisory Board and the Rocky Flats Coalition of Local Governments, of which both Broomfield and Westminster were members. The agencies shared drafts of a long-term management agreement, the precursor of RFLMA, for Rocky Flats at these meetings for public information and input.

57. 2.2.17 If the regulators do not have enforceability responsibilities in the refuge area to ensure surface water quality, the City and County of Broomfield, city and Westminster, City of Northglenn, and the Woman Creek Reservoir Authority may seek to have the POCs, groundwater wells, and drainage measuring stations placed at the boundary between the DOE retained lands and the refuge.

The regulators have enforcement responsibilities at the surface water points of compliance at Indiana Street to ensure surface water quality. Surface water POCs at Indiana Street are part of the final remedy as documented in the CAD/ROD. The remaining surface water POCs are all within the Central OU boundary and are part of the final remedy as documented in the CAD/ROD. CAD/ROD requirements are implemented and enforced in the RFLMA.

Contaminated groundwater is located within the Central OU boundary. Impacts or changes to water quality will be identified through the water monitoring network described in the FY2005 IMP. All AOC and Sentinel wells identified in the FY2005 IMP are located within the Central OU boundary. AOC wells are wells that are within a drainage and down-gradient of a contaminant plume or group of contaminant plumes. These wells are monitored to determine whether the plume(s) may be discharging to surface water. Sentinel wells are typically located near down-gradient contaminant plume edges, in drainages, and down-gradient of existing groundwater treatment systems. These wells are monitored to identify changes in groundwater quality. AOC and Sentinel wells are part of the final remedy described in the CAD/ROD. The CAD/ROD requirements are implemented and enforced through the RFLMA. Consequently, there is no need or regulatory requirement to have POCs, groundwater wells, and drainage measuring stations placed at the boundary between the

	DOE astoined loads and the refuse
	DOE retained lands and the refuge.
58. 2.3.1 Broomfield and Westminster agree with the risk assessment for air contamination. Revise Figure 2 to include the location of the three current air monitoring stations.	Analysis of filters from the three current air monitoring stations will cease with this October's filter collection. DOE will continue to run the air monitors and collect the filters on a monthly basis and store them for future analysis in the event of significant erosion or slumping in areas of surface and/or subsurface residual radiological contamination.
59. 2.3.2 We understand the application of air modeling can be utilized in place of actual air monitoring. We ask to be apprised of DOE actions pertaining to the air stations. Communication with Legacy Management is vital if our staff and Council representatives are expected to effectively convey our assurances of the monitoring program to our citizens.	DOE will notify stakeholders and the public of actions pertaining to air monitoring.
60. 2.3.3 Any changes to the air monitoring criteria shall be made via the IMP process with input from our communities.	Air monitoring is not a regulatory requirement at this point or in the future.
61. 2.4.1 We appreciate the efforts the RFCA Parties made to evaluate the ecological risks in the RI/FS. The evaluation was very comprehensive.	Thank you for your comment.
62. 2.4.2 The <i>Rocky Flats, Colorado, Site Vegetation Management Plan</i> , dated May 2006 was revised without our review or knowledge. The recent changes to the Vegetation Management Plan should have been discussed during the IMP ecological meetings. The City and County of Broomfield and Westminster are very concerned we continually express our desires and justifications to maintain the current IMP process, communication process, and notification process.	The CAD/ROD does not contain specific requirements for vegetation management.
63. 2.4.2.1 Previous protocols with DOE and our governments were for DOE to notify us when chemicals were applied at the site for target pest control. This information is very valuable to us. The	The CAD/ROD does not contain specific requirements for vegetation management.

site had several applications this year, and we were not notified until well after the application at a Quarterly Data Exchange meeting. Please ensure the Proposed Plan has language to include us with any revisions to the Site Vegetation Plan. This Vegetation Plan should be evaluated annually and we expect to be part of the evaluation process.

64. 2.4.2.2 The vegetation management plan is not clear if the plan is specific to the DOE-retained lands. This issue is crucial to the long-term stewardship application at the site.

The CAD/ROD does not contain specific requirements for vegetation management.

2.4.2.3 The Vegetation Plan identifies prescribed burns and notes they have been on hold until the USFWS develops and implants their management plans for the refuge. Any prescribed burn will require extensive public input, and we ask to be informed if and when DOE begins to develop a plan for prescribed burns. We are concerned with the statement in the Vegetation Plan stating: Currently, grazing is not permitted at the Site and prescribed burns have been suspended until USFWS takes over management of the Rocky Flats National Wildlife Refuge. Clarify if this means prescribed burns will occur across the entire site. Will grazing be allowed within the DOE retained lands? If so, this raises concerns with erosion problems with the DOE retained lands. We ask these questions because they may have long-term stewardship implications. When the CCP was drafter, the City and County of Broomfield and the City of Westminster clearly understood there delineation between the roles of DOE and the Service. Recent documents are vague as to what document falls under the jurisdiction of DOE or the Service. The Plan does not address how the lands will be managed, nor do they address how controls will be enforced and by whom.

The CAD/ROD does not contain specific requirements for vegetation management. Information on U.S. Fish & Wildlife Service refuge management is available in the Comprehensive Conservation Plan for the Rocky Flats National Wildlife Refuge.

66. 2.4.3 The Preble's Meadow Jumping Mouse (PMJM) is a listed as a threatened species under the Endangered Species Act. The Vegetation Plan identifies controls to allow up to three acres of

The CAD/ROD does not contain specific requirements for vegetation management or PMJM habitat management.

weed control within current PMJM areas within Rock Creek Reserve on an annual basis. Clarify how and if other controls for other areas at the site that are PMJM areas will be identified and managed.

67. 2.4.4 In the event the Solar Pond Treatment Unit has to be relocated to PMJM habitat, we ask to be involved in the evaluation process based on the impacts to Walnut Creek and Big Dry Creek.

Any proposed relocation of the Solar Pond Treatment Unit would trigger the consultative process under provisions of the RFLMA. The RFLMA will be offered for public review and comment.

68. 2.4.5 As the mouse controversy continues, we ask to be apprised on any potential impacts to the site. We also request that when a final decision is made pertaining to the mouse, the Water Working Group meet to evaluate the water and ecological impacts prior to revising the Site Vegetation Plan and the ecological section of the IMP.

The CAD/ROD does not contain specific requirements for vegetation management or PMJM habitat management.

69. 2.5.1 To assess the direction and magnitude of contaminant movement and groundwater migration, it is essential to evaluate data as generated to compare it against predetermined outcomes and identify whether reported concentrations are routine or indicative of worsening conditions. When our communities were first impacted by contamination leaving the site boundary, we were compelled to initiate a Water Working Group to develop a common vision with DOE to protect water quality. As the process evolved, there was a need to evaluate revisions to the site-wide water management plan and ecological impacts on an annual basis. The Integrated Monitoring Plan (IMP) served to:

The CAD/ROD contains monitoring and maintenance requirements that will be implemented by the RFLMA and includes the majority of attributes from the closure monitoring system as recommended by the IMP Water Working Group and contained in the 2005 and 2006 IMP. The monitoring data will continue to be provided to the public, cities and the LSO via the LM quarterly and annual reports. In addition, LM will present these data to the LSO, its constituents and the public for review, evaluation, discussion and comment. DOE does not anticipate any changes to the monitoring system in the near future.

- Develop data quality objectives with a goal to ensure compliance for surface water,
- Developed objectives and monitored pond discharges,
- Developed objectives and monitored discharges for the terminal detention pond discharges,
- Developed objectives and monitored off-site discharges for

community water supply management,

- Developed objectives and monitored groundwater interactions.
- Developed objectives and monitored special project activities such as D&D of buildings including close-in air monitoring and placement of groundwater wells to track migration or impacts of groundwater plumes near the buildings.
- Developed objectives and monitored discharges from treatment units,
- Developed objectives and monitored the Present Landfill and Original Landfill,
- Developed objectives and monitored air,
- Developed ecological objectives and monitored flora and fauna, and
- Reviewed National Permit Discharge Elimination System (NPDES) proposed revisions.

70. 2.5.2 It is imperative to maintain the IMP process to reassess site conditions and revise the monitoring systems to integrate on-site monitoring and off-site monitoring with downstream municipalities. Revise the language in the Proposed Plan to ensure the process continues post-closure. These meetings are highly technical and it is imperative to allow for discussion and exchange of data among those that generate data. Our goal is to evaluate the remedy. The data will verify if the remedy, which includes treatment, covers, caps, and removal, reduces toxicity and mobility post-closure.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

71. 2.5.3 The Proposed Plan is silent on continuation of the IMP process and we are very concerned Legacy Management does not intend to continue this process with downstream municipalities. With the recent revision to the Vegetation Management Plan of

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as

May 2006 and associated review of the IMP ecological section, DOE's actions potentially reflect their intent to preclude us from a process that for years served to build trust and confidence with our local communities and the regulatory agencies. At the Public Hearing held on August 31, 2006, DOE stated our comments to the Proposed Plan would not be dispositioned with us prior to the release of the final CAD/ROD. This statement leaves us very concerned. Our previous communication process has been negated by this statement and does not give us the ability to discuss our concerns. We are left to rely on language in a post-closure document that we have not had an opportunity to comment on.

the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

72. 2.5.4 We ask the RFCA Parties to work with us to ensure we continue the IMP process. To date, we have been willing to accommodate DOE's needs to concentrate on closure activities. We offer to host the meetings. We can have informal meetings to discuss data and exchange information, and we will try to meet the schedule of Legacy Management. Our justifications were conveyed to Legacy Management in 2004 and we only ask Legacy Management to adhere to their commitment made in 2004 to the City and County of Broomfield and to the City of Westminster. We ask that you work with our technical staff member to resolve this issue prior to the release of the final CAD/ROD.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

73. 2.5.5 To minimize the need for several meetings postclosure, the city and County of Broomfield and Westminster recommended the Water Working Group and the Quarterly Data Exchange meetings be combined. During these meetings the monitoring plans could also be evaluated on an annual basis. We ask that you respond to our request. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

74. 3.1.1 The document states: *Because the parties had anticipated using institutional controls consistent with the* 

The water monitoring stations outside of the DOE-retained lands are necessary to evaluate compliance with surface water standards,

anticipated future use of the site, CDPHE determined that a post-remediation analysis of residual risk on a release site basis was not necessary. The document does not state how and if institutional controls will apply at the point-of-compliance monitoring stations, boundary groundwater wells, or other monitoring stations outside of the proposed boundary. Please refer to our previous comment in Section 2 related to implementation of institutional controls. Revise the document to state the justification for not performing the post-remediation analysis. With the 903 Americium, is the analysis solely performed for dose or was inhalation considered for visitors, including children?

and thus will have physical and institution controls consistent with those within DOE-retained land. Although this was not explicit in the Proposed Plan, the CAD/ROD will clarify this requirement. No post-remediation analysis is required at release sites because no additional remediation is proposed, thus conditions will not change and any post-remediation analysis would be evaluating the same conditions. The CAD/ROD will include a statement to clarify this point. Regarding the 903 Pad americium, the RI included americium as an Analyte of Interest (AOI) for the air pathway, however no AOIs were identified in the contaminant fate and transport section as having a complete pathway to a receptor, which included a child Wildlife Refuge Visitor (WRV). The pathway is incomplete because physical and institutional controls will be used to limit access to the Central OU, which includes the former 903 Pad area, to only Wildlife Refuge Workers. Analysis of americium in the Peripheral OU, including the area east of the former 903 Pad, concluded that a complete pathway for inhalation existed to a WRV, adult or child, but contaminant levels were sufficiently low that the Peripheral OU posed no current or potential future threat to human health or the environment.

75. 3.1.2 The RFCA Parties committed to generate a final map of the site after the completion of the closure project to reflect the remaining residual contamination. This map was to assist the general public with a visual map of where residual contamination remained and where ICs would be applied. The RI/FS has several maps with considerable information, but this is not what the governments have been requesting. Revise the document to include an overlaid map identifying all the residual radioactive contamination in the soils, the remaining foundations, slabs, tanks, etc. and the groundwater contaminant plumes. This map should also include all the monitoring systems associated with the remedy. Institutional controls and access controls should apply to any area with residual contamination that needs to be protected from the public or contains a monitoring system to evaluate the remedy.

DOE is developing a map or maps to address your comment. Institutional and physical controls will be required for the Central OU.

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76. 3.1.3 The document is silent on physical controls and		
Institutional Controls for the Points-of-Compliance (POCs). It is		
ironic that the only two enforceable surface water monitoring		
stations will not be secured and protected from the general public.		
Revise the document to include language that fencing as an		
enforceable control will secure the POCs. In the event the POCs		
have to be relocated, the RFCA Parties will work with the impacted		
communities during the relocation process.		

The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU..

77. 3.1.4 Revise the boundary map, Figure 3, to include stamped areas retained by DOE for the Points-of-Compliance.

DOE is developing a map or maps to address your comment.

78. 3.1.5 Revise the boundary map, Figure 3, to include stamped areas retained by DOE for the groundwater wells at the site boundary.

DOE is developing a map or maps to address your comment.

79. 3.1.6 Revised the boundary map, Figure 3, to include stamped areas retained by DOE for surface water stations located outside of the DOE retained lands.

DOE is developing a map or maps to address your comment.

80. 3.1.7 We understand the language in the post-closure document will have boundary signs mandated as a legal control. We do not understand the issue the RFCA Parties have with mandating the fence as a legal control.

A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. However, DOE and USFWS have agreed that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU. In addition, DOE and the regulators have agreed to post signs at the main pedestrian and vehicle entrance gates into the

Central OU outlining the specific institutional control restrictions from the CAD/ROD and environmental covenant.

81. 3.2.1 The plan provides a map, Figure 3, delineating the Operable Unit (OU) boundaries. The RFCA Parties have decided to reconfigure the OU boundaries to consolidate all areas of the site that may require additional remedial actions into a final reconfigured Central OU. *The boundary of the new Central OU, also considers practicalities of future land management.*Broomfield understands the need Legacy Management (LM) has to establish a footprint that is as small a possible to reduce management cost and liability. We believe remedy evaluation and remedy protection have far greater justification to determine a boundary than the land management practicalities that were provided as justification for the proposed boundary.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. The boundary of the Central OU was determined based on data contained within the Proposed Plan as well as the RI/FS. The "practicalities of future land management" address minor adjustments to the boundary in consideration of sensitive habitats and surface topography. Remedy selection and protection is the driver behind the location of the boundary.

3.2.2 Broomfield and the City of Westminster do not agree with the proposed boundary for the south side of the Original Landfill. There appears to be two choices for the south boundary. The proposed boundary is to site the boundary to the north of Woman Creek directly south of the Original landfill. Further east of the Original Landfill site, the boundary moves south of the creek. The rationale provided to us by the RFCA Parties for determining the boundary was to make it more practical for the Fish and Wildlife Service so that they would not have to access DOE retained land in this area and then exit the boundary to continue with land management operations outside of the DOE boundary. We were then provided another justification based on the need to protect the wetland area directly south of the Original Landfill. Based on a tour taken in July, we are in agreement with the placement of the boundary directly south of the Original Landfill. We, however, do have concerns for the justification to exclude from the DOE retained lands the upgradient surface water monitoring station and the immediate downgradient surface monitoring station associated with the Original Landfill. We

There is no justification to expand the area of DOE retained lands for purpose of access. Per the Refuge Act DOE may access any areas, whether in the Central OU or Peripheral OU, that are required for monitoring or remedy purposes. However, consultation with USFWS following direct field investigation indicated several concerns about encroachment on habitat and maintenance of the CAD/ROD physical controls. Based on these concerns, the boundary was expanded outward in a few areas, most notably south of the Original Landfill (see Figure 3). Land-use issues affecting Rocky Flats National Wildlife Refuge Lands are addressed in the U.S. Fish & Wildlife Service's Environmental Impact Statement. DOE will be required to maintain and protect any monitoring locations in the wildlife refuge to ensure that they continue to function as designed, regardless of their location relative to the Central OU. Specific monitoring requirements will be addressed in the RFLMA, which will be made available for public comment.

disagree with DOE that the two crucial surface water stations should be located outside of the DOE retained lands. There is no justification to exclude these water stations from DOE retained lands. Revise Figure 3 to expand the DOE retained lands to include GS-05 and GS-59. These stations are not located in steep areas, nor are they in riparian areas. The other alternative is to manage all the surface water stations consistently at the site and apply institutional and physical controls to these two stations associated with the Original Landfill. They would have to have additional layers of protection just as the POCs and the boundary wells at Indiana Street. All monitoring stations and wells should be maintained, operated, and funded by DOE.

83. 3.2.3 Groundwater from the Original Landfill is designed to flow underneath the buttress and migrate directly into Woman Creek. The Proposed Plan does not address the process to site groundwater wells or surface water monitoring stations within the refuge if warranted based on technical recommendations. Revise the Proposed Plan to address the process to potentially locate future monitoring systems outside of the DOE retained lands.

Locations of groundwater monitoring wells at the Original Landfill were chosen in compliance with the Integrated Monitoring Plan (IMP) and with the approval of CDPHE and EPA. Pursuant to RCRA/RFCA, one well is up-gradient and three wells are downgradient of the OLF. If there is an increasing trend in downgradient versus up-gradient monitoring wells, or if a selected percentage of the data exceed surface water standards, the RFCA parties must consult with each other. Surface water monitoring at the OLF proceeds in a similar manner. The Refuge Act permits DOE access to the refuge area to conduct operation and maintenance, and any other obligations it may have under RFCA or the Legacy Management Agreement. The Memorandum of Agreement between DOE and the Department of Interior will likely address details related to DOE's access to the refuge lands.

84. 3.2.4 These monitoring stations located outside of the DOE-retained lands provide crucial data. This data allows a proactive approach to identify a potential issue close to the source rather than a reactive approach that could impact water quality in the creeks or ponds. We cannot emphasize enough that the creek and the ponds should never serve as a treatment method or serve as a unit to dilute contaminants prior to discharge into waters of the United States.

The remedy does not rely on or assume that the creeks or ponds treat or dilute surface water.

85. 3.2.5 To assist with a final determination of the southern boundary, we prefer that one of our previous consultants or technical staff assist with identifying the final boundary on the south side of the site associated with Woman Creek.	There is no justification to expand the area of DOE retained lands for purpose of access. Per the Refuge Act, DOE may access any areas, whether in the Central OU or Peripheral OU, that are required for monitoring or remedy purposes. Boundaries of the operable units established in the CAD/ROD. However, consultation with USFWS following direct field investigation indicated several concerns about encroachment on habitat and maintenance of the CAD/ROD physical controls. Based on these concerns, the
	boundary was expanded outward in a few areas, most notably south of the Original Landfill (see Figure 3).
86. 3.2.6 Based on proposed activities identified in the Comprehensive Conservation Plan (CCP) drafted by the Fish and Wildlife Service the southern portion of the refuge will have much more activities than the north side. We have additional concerns activities such as hunting, horseback riding, and other off-trail activities could jeopardize the integrity of the monitoring stations near the Original Landfill.	The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. DOE will be required to maintain and protect monitoring equipment to ensure that they continue to function as designed.
87. 3.2.7 Just as the Preble's Meadow Jumping Mouse has a 300-foot protection area, we believe the remedy should also have an identified minimum protective area to protect the monitoring systems and the remedy from the public.	DOE will be required to maintain and protect monitoring equipment to ensure that they continue to function as designed.
88. 3.2.8 Revise the map, Figure 3, to move the boundary north of the Present landfill at least 300 feet from landfill boundary. It may be practical to follow the road north of the landfill, but the area northeast of the landfill should be pushed further north to protect the cap based on the proximity to the road and the cap.	The boundary of the Central OU was determined based on data contained within the Proposed Plan as well as the RI/FS. The OU boundary established in the Proposed Plan fully encompasses the Present Landfill and is protective.
89. 3.2.9 We would like to emphasize our concern is not the risk associated with the landfills, but rather the potential of public damage to the remedies and the monitoring stations that evaluate the remedy.	DOE fully agrees with this comment. DOE will be required to maintain and protect monitoring and remedy locations to ensure that they continue to function as designed.

90. 3.2.10 It is germane to identify the above mentioned POCs, surface water monitoring stations, and boundary wells on the map, Figure 3. Language for implementation of ICs and access controls shall be included in the Proposed Plan. We ask to participate with the development of the controls prior to the release of the final CAD/ROD. If sufficient controls are in place, we support Alternative 2. If clear controls are not defined, implemented, or enforced, we would therefore support Alternative 3.

DOE is developing a map or maps to address your comment. Early draft efforts have shown that including all the information listed in your comment on a single map makes it so cluttered that it is unreadable.

The suggested revisions are inappropriate for the Proposed Plan, which develops broad alternatives for remedial action. Approval of the CAD/ROD will select the alternative and establish the requirements to implement that alternative. More detailed information describing how DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the RFLMA. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

91. 3.2.11 A fence around the Central OU should be more than a best-management practice. Revise the document to state the fence will be an enforceable control associated with the remedy and placed around the DOE-retained lands and monitoring systems outside of the DOE retained lands. In addition, the fence should be legally enforceable for these stations. This language in the CAD/ROD should support the enforceability of the fence in the post-Rocky Flats document as a regulatory mandated physical control. We expect the fence to be a legal control that is enforceable and will have identified maintenance and surveillance schedules. Corrective actions pertaining to the physical condition of the fences should also be identified in a Standard Operating Procedure for inspections of the site boundary and include signage.

A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. However, DOE and USFWS have agreed that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU.

92. 3.2.12 Broomfield is concerned the proposed boundary does not include the 903 Americium Area. To state: *These levels of radioactivity are also far below the 231 pCi/g activity level for an adult rural resident that equates to the 25 mrem/year dose criterion specified in the Colorado Standard for Protection Against Radiation* may be simplifying the risk based on dose. The issue

The Peripheral OU will be transferred from DOE to USFWS (in large part), and will become the Rocky Flats National Wildlife Refuge. The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. Plans for use of groundwater by USFWS in the Refuge are beyond the

with this area is to prevent digging to prevent dust dispersion and to control erosion to protect surface water quality. Not including this area within the Central OU (DOE retained lands) will have no associated ICs with this area. It would be irresponsible to allow digging or installation of groundwater wells for irrigation or other domestic use in this area. Activities in this area should not be allowed, especially horseback riding, trails, or any activity that could generate additional dust or increase the potential for erosion.

scope of this CAD/ROD; however, information on Refuge management may be found in the CCP for the Rocky Flats National Wildlife Refuge prepared by USFWS.

93. 3.3 Based on the Independent Verification and Validation review by ORISE in the 903 pad and Inner Lip Area, there were additional hot spots that were identified in the 903 pad and Inner Lip area. We therefore question the potential for hot spots in the Americium Area. Revise the map to include the Americium Area in the DOE retained lands.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. The Central OU includes the historical 903 Pad and much of the wind blown area. While a small portion of the Peripheral OU may contain plutonium-239/240 above background in surface soil, the RI determined that from a risk perspective that portion of the site is acceptable for all uses.

94. 3.3.2 We would also be concerned if grazing were allowed in the Americium Area. Erosion would increase in this area and there would be a potential to impact Woman Creek. The runoff in this area would not be captured in C-2 and could potentially leave the site without being monitored. Clarify the basis for figure 3 in the Proposed Plan (Attachment 1) versus the proposed boundary in the Comprehensive Conservation Plan as identified below.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. The Central OU includes the historical 903 Pad and much of the wind blown area. While a small portion of the Peripheral OU may contain plutonium-239/240 above background in surface soil, the RI analyzed and modeled erosion and windblown exposure scenarios, and determined that from a risk perspective that portion of the site is acceptable for all uses.

95. 4.1.1 There are also two outcrops directly south of the creek that may one day need to be evaluated for surface water quality. Until we have sufficient data to ensure both groundwater and surface water quality are not impacted from the Original Landfill, we need the ability to monitor in Woman Creek or directly south of Woman Creek if warranted. ICs would only apply to the DOE retained lands and the ability to add additional monitoring stations in the refuge could be very difficult if the refuge does not manage

Locations of groundwater monitoring wells at the Original Landfill were chosen with the approval of CDPHE and EPA. Pursuant to RCRA/RFCA, one well is up-gradient and three wells are downgradient of the OLF. If there is an increasing trend in downgradient versus up-gradient monitoring wells, or if a selected percentage of the data exceed surface water standards, the RFCA parties must consult with each other. Surface water monitoring at the OLF proceeds in a similar manner. The Refuge Act permits

any lands associated with ICs. It is premature to assume there is sufficient data to evaluate the remedy for the Original Landfill. Revise the Proposed Plan to include language to allow for adding to the monitoring system outside of DOE retained lands if warranted by an evaluation of the RFCA Parties and the Water Working Group.

DOE access to the refuge area to conduct operation and maintenance, and any other obligations it may have under RFCA or the Legacy Management Agreement. The Memorandum of Agreement between DOE and the Department of Interior will likely address details related to DOE's access to the refuge lands. The Legacy Management Agreement will incorporate the requirements for monitoring at the Original Landfill that are found in the OLF Monitoring and Maintenance Plan.

96. 4.1.2 With current data, we do not question the risk of the Original Landfill to human health and the environment. We do question the integrity of the cover on the landfill and the ability to keep the buried waste segregated from groundwater infiltration and infiltration from precipitation. Our concern is with the current seeps on the cover that now have a higher potential to release contaminants directly into Woman Creek that previously were not mobile or at the surface to flow directly into Woman Creek.

The potential for the Original Landfill to impact Woman Creek as a result of the seeps, surface runoff, or ground water was a primary consideration of the design and construction. The locations of ground water and surface water monitoring will monitor any impacts to the creek as well as changes in the ground water that might impact the creek. The intent of the remedial action was to stabilize the hillside. Protecting the buried waste from precipitation infiltration is not one of the functions of the cover. The landfill cover will also be monitored for integrity to ensure long-term performance.

97. 4.1.3 Per the document, the cover is effective and protective based on the identified pathways that were evaluated. With the current seeps we now have a pathway that was not evaluated. We question the integrity of the cover and the numerous seeps that have developed since the placement of the cover. See Attachment 2.

No new seep areas have developed at the Original Landfill (OLF) that were not recognized during design and construction. Seep #7 did express itself at the surface a few months after construction, and now expresses itself higher on the hill. DOE is evaluating the need to extend the french drain system at Seep #7 to intercept this upper area. The design and construction of the OLF accommodate variable moisture/hydrologic conditions on and in the landfill with no compromise in performance. Required surveillance and monitoring are adequate to ensure appropriate evaluation of the landfill performance.

98. 4.1.4 The water in Attachment 2 could have been sampled to provide additional data to document the quality of the groundwater surfacing as a seep. Westminster, the City and County of Broomfield, and our Professional Consultants voiced their

The potential impacts of all runoff water from the Original Landfill are monitored by the surface water monitoring locations in Woman Creek near the landfill. The landfill cover was not designed to prevent infiltration. Prior to design and construction when far more

concerns with the placement of a shallow cover to prevent groundwater passing through the waste and surfacing at the cover. There was nothing in the landfill closure document to prevent the groundwater from passing through the waste and into Woman Creek. We voiced our concern with groundwater being allowed to directly enter Woman Creek without being monitored. Now the remedy has exacerbated the situation by causing the groundwater to seep to the top of the cover and potentially have a new pathway that was not evaluated.

infiltration, active seepage, and uncontrolled runoff occurred than now, monitoring data never indicated any impact of the landfill on Woman Creek. The current surveillance and monitoring will continue to evaluate the remedy.

99. 4.1.5 We are very concerned the Original Landfill IM/IRA states monitoring of the Original Landfill will consist of quarterly monitoring until the first CERCLA review. We understand the next 5-year review will be in spring of 2007 and with the current status of the integrity of the cover, DOE would not show due diligence if they did not continue to monitor quarterly until the next review in 2012. We ask this because there would be sufficient data to evaluate remedy and the changes to hydrology in this area.

As stated in this comment, and per the CAD/ROD, the next CERCLA periodic review will take place in 2007, to coordinate this review with the schedule for periodic reviews already established at Rocky Flats. At this time, DOE does not anticipate that the review will result in major changes to the monitoring programs established pursuant to the CAD/ROD. However, that determination will be made in the context of the data analysis as part of the periodic review.

100. 4.1.6 The City of Westminster also reserves the right to ask for periodic sampling of the South Interceptor Ditch if warranted.

The CAD/ROD states that the environmental monitoring, as well as the monitoring that will be included in RFLMA, is adequate to ensure continuing protectiveness of the remedy. Therefore, the CAD/ROD requires no additional sampling.

101. 4.1.7 We agree with the list of analytes to be evaluated at the Original Landfill are the full set of analytes identified in Attachment 5, Table 1. We understand the sampling as recent as February 2006 triggered monthly sampling per the decision rule. Arsenic and thallium were above the RFCA standard. The City of Westminster expects to be kept apprised of the results of the monthly sampling. This is once again justification for the need of a Water Working Group to implement a strategic water management plan for the site.

Recent detections of arsenic and thallium occurred at the Present Landfill Pond, not at the Original Landfill. The CAD/ROD requires DOE to report environmental data on a quarterly basis, and that these reports be made available to the public.

102. 4.1.8 We question the success of the restoration effort on

While the vegetation on the OL appears sparse this year, it has

the cover and areas still do not have established growth. We are very concerned without a successful restoration effort; Woman Creek will be vulnerable to mass loading of sediment. (Attachment 3) done extremely well considering the weather conditions. RFETS has had only had about 1/3 of our normal precipitation for the entire year so far in 2006, so considering the weather, what DOE is seeing is actually quite good. The EPA and their expert consultant toured the OL during the summer to evaluate the health of the vegetation cover. The EPA expert thought the OL area looked great, especially considering the drought conditions. A large amount of new grass has sprouted since the site began receiving effective precipitation in late June. Mats and other erosion controls are effectively controlling sediment loss. The remaining seed is still in the ground awaiting more favorable conditions. Time and patience is the key for a native revegetation project such as this.

The dry spring and early summer conditions have actually allowed more seed to sprout prior to any substantial precipitation events. Had such an event occurred in the spring when the area was less vegetated, it would have caused extensive erosion and resultant deposition. Future precipitation events will be buffered by the existing and developing ground cover and will cause less detrimental effects.

103. 4.2.1 We agree based on the current data, there is minimal risk at the Present Landfill. The risk assessment was based on previous data. With the new sampling and monitoring plan, Attachment 5 of the current RFCA lists the analytes to be monitored at the treatment unit. It was not until this sampling plan was revised that the effluent was sampled for a full suite of analytes. The last analytes identified above the stream standards were boron and manganese. The RFCA standard for boron is 750  $\mu g/L$  and the result was 1,930  $\mu g/L$ . Manganese standard was 1,858  $\mu g/L$  and the result was 5,650  $\mu g/L$ . Monthly sampling was initiated for these two analytes. The sampling events were triggered and the quarterly monitoring was increased to monthly sampling for three consecutive months. We are very concerned water is allowed to discharge from the Present Landfill Pond into No Name

Per the CAD/ROD, the requirements for monitoring and maintenance at the Present Landfill will be derived from the approved Monitoring and Maintenance Plan for the Present Landfill, which addresses water quality issues in the Present Landfill Pond. These requirements are part of the selected remedy, and will be incorporated into RFLMA.

Gulch knowing the effluent exceeds surface water standards. How can DOE be allowed to discharge water that exceeds the surface water standard and have the approval of the regulators? Once again, we understand the risk is minimal, but the standards are regulatory mandated and we do not understand the application of the discharge versus the stringent standard our waste water facilities have to adhere to prior to discharge.

104. 4.2.2 We are very concerned with the language in the Present Landfill IM/IRA that states the pond will be sampled based on a "decision rule." We have no role in the decision, yet the City and County of Broomfield may be directly impacted.

Per the CAD/ROD, the requirements for monitoring and maintenance at the Present Landfill will be derived from the approved Monitoring and Maintenance Plan for the Present Landfill, which addresses water quality issues in the Present Landfill Pond. These requirements are part of the selected remedy, and will be incorporated into RFLMA. The CAD/ROD requires that RFLMA, in which substantive requirements for monitoring and maintenance of the Present Landfill will be incorporated, be subjected to formal public comment. The CAD/ROD also requires that water quality data be reported by DOE on a quarterly basis, and that these reports be made available to the public.

105. 4.2.3 The objective of the treatment system at the Present Landfill is to *demonstrate compliance with surface water standards*. The risk assessment evaluated risk, yet there seems to be a diminishing of the need to demonstrate compliance with RCRA regulated unit. Revise the document to provide justification for allowing a release of surface water without demonstrating compliance.

Per the CAD/ROD, the requirements for monitoring and maintenance at the Present Landfill will be derived from the approved Monitoring and Maintenance Plan for the Present Landfill, which addresses water quality issues in the Present Landfill Pond. These requirements are part of the selected remedy, and will be incorporated into RFLMA.

106. 4.2.4 We do not agree with measuring compliance with the Present Landfill at the POC at Indiana. The POC for the Present Landfill should be at the outfall of the treatment unit before it is released to waters of the state.

The CAD/ROD requires that POCs remain at the outfalls of the Rocky Flats terminal ponds, as well as in Walnut Creek and Woman Creek at Indiana Street. Per the CAD/ROD, the requirements for monitoring and maintenance at the Present Landfill will be derived from the approved Monitoring and Maintenance Plan for the Present Landfill, which addresses water quality issues in the Present Landfill Pond. These requirements are

part of the selected remedy, and will be incorporated into RFLMA.

107. 4.2.5 There appears to be subsidence on the northeast face of the cap on the steep slope north of the treatment unit/pond. The Proposed Plan states the remedy is functioning per design. The document does not address the subsidence. We are concerned about slippage of the hillside in this area and it was addressed in our Present landfill comments in the IM/IRA. Please respond as to how this issue will be addressed.

At this time, DOE is unaware of any subsidence north of the treatment system in the landfill cover as suggested by the commenter. Surveillance and monitoring requirements for the Present Landfill result in a very comprehensive on-going evaluation of the remedy. If at any time slope movements or subsidence are observed, the conditions are documented and the situation is monitored and evaluated. If any actions are required to assure remedy performance, those actions will be developed through the consultative process among the RFCA parties.

108. 4.2.6 We observed a discoloration of the water in the treatment unit during our tour on August 21. Please clarify the reason for the discoloration in the unit.

The orange discoloration observed in water at the Present Landfill treatment system is typical of water containing dissolved iron when it is exposed to oxygen in the air.

5.1 During remediation of the Industrial Area, both the City of Westminster and the City and County of Broomfield voiced their concern about the specifications pertaining to compaction at the site. Since regarding the 991 area there is severe subsidence and cracking in the area. (Attachment 4). We were lead to believe this instability in the area was due to lubrication from an outfall of a French drain. SW056 was in this area to measure water quality. At the end of September 2005, the outfall of the drain was removed and the east-west portion of the drain was interrupted. Sentinel well 45605 was installed upgradient (west) of the interruption and downgradient (north) of the remaining portion of the drain. There still continues to be a problem in this area. The outfall eliminated the flow into FC-4, but the cracks continued to increase in depth and width. We are very concerned the floor of FC-4 is experiencing extreme uplift. This area has a high potential to have both radioactive and VOC contamination that was not adequately characterized. Based on the risk analysis of the contamination, there was not pathway for the radioactive contamination. The area

The area of slope instability mentioned (in the vicinity of old SW056) is undergoing detailed and ongoing surveillance. At this time, there is no adverse impact on the surface water quality by VOCs or radionuclides as a result of the instability. VOCs are known to be present in the ground water in the vicinity of the slump while uranium (mostly naturally occurring) is known be present in the ground water site-wide. Ongoing surface water monitoring will occur to determine if there are any adverse effects from the unstable area. Regarding the deformation of functional channel FC-4 resulting from the slope instability, ongoing observation will continue and if the functionality of the channel is compromised, repairs will be made.

has massive cracks and now may have a pathway that was not analyzed in the risk analysis.

110. 5.2 We commend DOE for having a geotechnical engineer inspect the areas and suggest actions that could stabilize the slope. We have yet to see a schedule or plan to correct this situation. We are very concerned of mass sediment loading into Southern Walnut Creek. We strongly disagree with DOE and the regulators that this *is not a CERCLA issue* because we do have groundwater monitoring stations in this area and this area flows directly into South Walnut Creek. We have GS-10 directly downgradient of this area and we continue to have elevated concentrations at this station. To state *Well 45605 will continue to be monitored in accordance with the IMP for as long as that is feasible*, in itself speaks of the need to monitor this area because of residual contamination.

As the commenter points out, the surface water POE GS-10 is directly down-gradient of the area of slope instability and any erosion related sedimentation. Any adverse water quality impacts that could occur will be observed. To date, there have been none. The relevant question is not whether there is a stability problem or how to fix it; it is whether the remedy is adversely impacted by site conditions. As there is no adverse impact to the remedy at this time and there is no reason to believe there will be, the parties will continue to observe and monitor. (Also, see response to 5.1 above)

111. 5.3 We ask for justification as to why the area is not being stabilized. The reasoning provided by the RFCA Parties is: to repair it would be fairly significant and stabilization would entail surface grading and backfilling as well as loading the toe of the slope. Both of these activities would cause considerable damage to the newly-graded ground in this area, and could require the establishment of new roads to the bottom of the slope. The regulators came to a consensus to continue to observe condition in this area. When conditions have stabilized, LM will develop a plan to regrade to meet general aesthetic and safety objectives.

The RFCA parties believe the current approach of surveillance and monitoring is appropriate and protective. The site remedy has not been adversely impacted by the slope conditions. It is not unexpected that after so much dirt moving on the site that some slope adjustments will naturally occur. DOE will continue to observe the entire site for signs of instability and evaluate any conditions for impact to the remedy. (Also, see responses to 5.1 and 5.2 above)

112. 5.4 When on the tour in June of 2006, technical staff asked when and how well 45605 would be replaced and the response was the issues would be discussed through the RFCA consultative process. There was no mention of discussing this issue via the Water Working Group. This statement confirms, as does the language in the Quarterly Report for June 2006, that the RFCA Parties do not support the spirit of RFCA to include the downstream municipalities with decisions that could impact their

Well 45605 is still operational and has not been replaced. Should the well become non-functional, a new well will be installed.

communities.

113. 6.1 We disagree with the statement in the Proposed Plan and the RI/FS that Continued operations of these four systems serves to protect surface water quality over short-and-long intermediate-term period by removing contamination loading to surface water. This protection also serves to meet long-term goals for returning groundwater to its beneficial use of surface water protection. We agree the systems should serve as a final remedy, but they currently do not function effectively as per design.

The RFCA Parties believe that the groundwater treatment systems are functioning as designed and are part of the final remedy. Continued operation of these systems serves to protect surface water by reducing the groundwater contaminant loads that would be discharged to surface water. As part of DOE's commitment to maintain these systems so that they continue to function as designed, the Solar Ponds Plume Treatment System was recently repaired to improve its treatment efficiency.

114. 6.2 Broomfield understands when the treatment units were sited, some sections of the groundwater plumes were downgradient of the units, and therefore, we had sacrificial zones and expected to see degradation of the contaminant as loading was diminished. Data for some of the units are sporadic and leave us to question if the contamination in the groundwater is from the plume bypassing the unit or from a separate source that has yet to be identified.

As indicated in the Groundwater Interim Measure/Interim Remedial Action (IM/IRA), these groundwater systems were not intended to capture all of the groundwater contamination but to intersect the down-gradient portion of the plume, thus reducing the groundwater contaminant load discharging to surface water. DOE recognizes that portions of the contaminant plumes exist downgradient of the treatment systems as constructed, which will be slowly removed over time as the groundwater contaminant load is diminished. However, based on the extensive site characterization and historical release evaluations, the RFCA Parties have concluded that it is unlikely that significant unidentified sources of contamination exist that could impact groundwater. The RFCA Parties believe that monitoring currently conducted at the treatment systems is sufficient to evaluate their efficiency and long-term performance.

115. 6.3 Based on GEI's report on the evaluation of the Groundwater IM/IRA, they were concerned there was an adequate evaluation of all the groundwater plumes at the site. GEI was concerned with the statement made by DOE that all the treatment units were functioning per design, yet there were insufficient data sets to verify modeling of the contaminants. The Solar Pond Treatment Unit for years has been a concern to our staff and DOE cannot confirm they will be able to meet the nitrate standard of

Based on the extensive site characterization conducted at the site and the subsequent modeling results presented in the Groundwater IM/IRA and the Summary of Hydrologic Flow and Fate and Transport Modeling Conducted at RFETS, Golden, Colorado, dated September 2005, the RFCA Parties believe that all of the groundwater plumes at the site have been sufficiently evaluated. Furthermore, groundwater conditions at the site continue to be evaluated. As indicated, in response to Broomfield/Westminster

10mg/L in 2009 when the temporary standard expires. We ask that in your disposition to our comments you provide a plan and assurances that you will be able to meet the 10mg/L standard at the effluent of the Solar Ponds treatment unit and at the discharge point of the Discharge gallery for the Solar Pond Unit.

Comment 6.1, the groundwater treatment systems are functioning as designed, especially with the recent repairs to the Solar Pond Plume Treatment System which have increased its throughput and overall efficiency. DOE will continue to monitor groundwater and surface water with the goal of achieving the nitrate standard of 10 mg/L by 2009.

116. 6.4 GEI recommended a more robust sampling program to provide an additional layer to the monitoring program. This additional evaluation of data would also serve to provide additional protection to offsite receptors.

The RFCA Parties believe that the current sampling program is very robust and no additional sampling is needed for an additional layer to the monitoring program. This would not serve as additional protection to offsite receptors since all the impacted groundwater discharges to surface water up-gradient of the terminal ponds and does not leave the site above water quality standards.

117. 6.5 Walnut Creek should not be used as a treatment method to dilute nitrates or uranium and we expect to have the standard met prior to entry into Walnut Creek.

The Solar Ponds Plume Treatment System goal (and the associated monitoring identified in the IMP) is to meet the surface water standard upon entry of groundwater into Walnut Creek. It should be noted that the majority of the uranium in North Walnut Creek is from natural sources and not man-made sources.

118. 6.6 We argue that the objective of the treatment unit at the Solar Pond has been met. We question the length of time DOE took to evaluate the mechanical and operational aspects of the effectiveness of the unit. We thank DOE for taking action to determine the performance issue with the treatment unit. We also applaud DOE for performing a treatability study. Our concern is the study will be performed within the unit. We ask that the RFCA parties perform a bench-scale treatability test prior to using the treatment unit as a scientific experiment. With closure of the site, the unit is to be a final remedy, not an interim remedy.

The SPPTS has undergone substantial repair and maintenance in the summer and fall of 2006. These actions are expected to restore the system to its original operating condition, which has been shown to be effective in treating nitrate and uranium isotopes in shallow groundwater in the vicinity of the historic Solar Ponds. Continued maintenance of the system to ensure its long-term effectiveness is a requirement of the CAD/ROD.

119. 6.6.1 We ask to be informed on a weekly basis of the status of the unit based in the impact of the contaminants to Walnut Creek.

The CAD/ROD requires that water quality data be reported by DOE on a quarterly basis, and that these reports be made available to the public.

120. 6.6.2 We are concerned that the new proposed media may not work and there will be a need to expend additional resources to remove the overburden and remove the experimental media. This action would result in the generation of additional waste and additional risk to the workers.

The SPPTS has undergone substantial repair and maintenance in the summer and fall of 2006. These actions are expected to restore the system to its original operating condition, which has been shown to be effective in treating nitrate and uranium isotopes in shallow groundwater in the vicinity of the historic Solar Ponds. Continued maintenance of the system to ensure its long-term effectiveness is a requirement of the CAD/ROD.

121. 6.6.3 When the treatability study has been completed, we request a copy of the results for our review and evaluation.

Treatability study results will be contained in either the annual or quarterly DOE reports that are required by the CAD/ROD. These reports will be made available to the public.

122. 6.6.4 DOE has argued that the nitrate results in the discharge gallery are higher than the effluent from the treatment unit because sections of the groundwater plume were downgradient from the sited treatment unit. After more than six years we have not seen a significant decrease in nitrates in the discharge gallery.

The CAD/ROD recognizes that, while groundwater accelerated actions performed under RFCA will ultimately lead to improvements in groundwater quality, contamination will remain in the UHSU in the Central OU for some period of time. The CAD/ROD also references the Groundwater IM/IRA, which found that there are no additional, practical steps that can be taken to improve groundwater quality at Rocky Flats. The CAD/ROD also notes that the areas of surface water affected by contaminated groundwater, such as in North Walnut Creek, are limited. The SPPTS has undergone substantial repair and maintenance in the summer and fall of 2006. These actions are expected to restore the system to its original operating condition, which has been shown to be effective in treating nitrate and uranium isotopes in shallow groundwater in the vicinity of the historic Solar Ponds. Continued maintenance of the system to ensure its long-term effectiveness is a requirement of the CAD/ROD.

123. 6.6.5 Revise the document to state once all the treatment units are meeting their remediation action objectives, DOE will propose to de-list the site.

EPA, not DOE, files the Notice of Intention to delete a site from the NPL. Deletion from the NPL is not an area that is appropriately addressed in the Proposed Plan, and will be considered later during site close-out activities.

6.7.1 Remedial action objectives are clearly developed to 124. provide the foundation of cleanup actions at a site for all impacted media such as groundwater, surface water, soil, and environmental protection. It is clearly understood if the objectives are not met, there are specific mechanisms such as institutional controls to ensure protection of human health and the environment. Of the seven remedial action objectives that were evaluated for the feasibility study, not one objective is completely met. Mechanisms have to be put in place to prevent use, prevent exposure, or statements are made such as: At this time, no other additional actions can reasonably be taken are used as reasoning as to why the RAOs were not met. The RAO for exposures that results in an unacceptable risk to the Wildlife refuge worker is identified in Soil RAO Objective 3 for the WBEU. The contaminant of concern is plutonium-239/240 in soils. We understand the risk is still within the acceptable range of  $2x10^{-6}$ . We are concerned there are no controls in place to prevent digging within this area. Controls need to be in place for the life of the contaminant as long as it poses a risk. Impacts to Woman Creek also have to be considered as soils enter the creek.

The preferred remedy (Alternative 2) meets all RAOs. The Central OU includes the historical 903 Pad and much of the wind blown area. While a small portion of the Peripheral OU may contain plutonium-239/240 above background in surface soil, the RFCA parties have agreed that this portion of the site is acceptable for all uses.

125. 6.7.2 We are not asking for additional removal, but we do believe there should be a control to prevent digging in this area. Erosion control measures also have to be implemented and adhered to protect surface water quality.

The Central OU includes the historical 903 Pad and much of the wind blown area. While a small portion of the Peripheral OU may contain plutonium-239/240 above background in surface soil, the RFCA parties have agreed that this portion of the site is acceptable for all uses.

126. 6.7.3 Alternative 2 and Alternative 3 add the implementation of institutional and physical control. The seven controls are identified, yet the Proposed Plan states the controls will be embodied in a post-RFCA enforceable document and an environmental covenant. What is missing are the details of how the controls will be implemented, what will be enforced, who will enforce the controls, public input into the development of the controls, and how corrective actions will be mandated. We have

The institutional and physical controls that are part of the final remedy, as documented in the CAD/ROD, were identified in the Proposed Plan. The public's opportunity to provide input into the development of the controls is by commenting on the Proposed Plan. The CAD/ROD requirements are implemented and enforced through the RFLMA.

concerns as the document states: plans will be developed once evidence that violates the restrictions or damage of the controls are found. There may not be time to draft a plan or have it reviewed. We are being asked to review a document and evaluate the proposal yet significant details are excluded from the document.

127. 6.7.4 Revise the Plan to state an annual report to the regulatory agencies and communities will include language pertaining to the failure of controls. Notification of any failure of controls should be made to the regulatory agencies and impacted communities as soon as DOE becomes aware of the failure. Any corrective action should also be reported to the regulatory agencies and the impacted communities and identified in quarterly and annual reports.

The CAD/ROD and the RFLMA specify reporting requirements to the agencies. These reports will be shared with the communities.

128. 6.7.5 If the details of the controls are to be addressed in the post-RFCA document, we ask for a 60-day comment period for time to evaluate the details of the long-term stewardship plan and controls.

Implementation and enforcement of institutional and physical controls will be described in the RFLMA. The RFLMA will be available for a 30-day public comment period.

129. 7.1.1 The City and County of Broomfield and Westminster continue to have problems accessing information on the electronic administrative record. We are very concerned the site will be delisted and we will not have access to vital information. This information per CERCLA, section 113 requires that an administrative record be established "at or near the facility at issue." The record is to be complied contemporaneously and must be available to the public and include all information considered or relied on in selecting the remedy, including public comments on the proposed plan. We understand new guidance calls for an electronic version of the administrative record. If the record is not accessible, it is not available. Provide a schedule of when DOE anticipates the record will be available and functioning electronically. We also ask for assurances to have public input as to what document should be in the record.

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR may be obtained by contacting the LM public affairs office for the Rocky Flats Site.

130. 7.1.2 Most of the maps in the electronic version of the administrative record are in black and white. The maps and associated legends do not add any value to the record. Based on a \$7 billion cleanup, it would have behooved DOE to enter the information into the system so that the community could access information that is of value and can be understood and evaluated.

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public affairs office for the Rocky Flats Site.

131. 7.1.3 The City and County of Broomfield and the City of Westminster continually voice concerns about the availability of the record. We do not understand why the regulators do not enforce the regulation to meet the needs of the community.

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public affairs office for the Rocky Flats Site.

132. 7.1.4 We were disappointed to have a regulatory representative state *the record has to be available electronically, but the regulation does not state it has to be operable.* This statement is in direct contrast to the requirement of the law.

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public affairs office for the Rocky Flats Site.

133. 7.2.1 The Rocky Flats Reading Room located at the College Hill Library has served as a valuable tool to the community. We have been able to retrieve documents at the reading room that were not even available at the site.

The future of maintaining the reading room at the College Hill Library at the Front Range Community College will be determined during the upcoming 5-year CERCLA review of the Site.

134. 7.2.2 We ask the reading room be maintained until we have assurances the electronic version of the administrative record is fully functioning.

The future of maintaining the reading room at the College Hill Library at the Front Range Community College will be determined during the upcoming 5-year CERCLA review of the Site. The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is

	undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public affairs office for the Rocky Flats Site.
135. 7.2.3 Legacy Management has committed to work with us when it is decided to disposition the documents in the reading room. To date, we have not been involved with any decisions pertaining to the reading room.	The future of maintaining the reading room at the College Hill Library at the Front Range Community College will be determined during the upcoming 5-year CERCLA review of the Site.
136. 7.2.4 We understand the reading room was to be maintained until the end of the fiscal year. We now have heard unofficially the room will be maintained until next spring. Clarify the status of the reading room. We ask that the community be part of the decision process associated with the reading room and its records.	The future of maintaining the reading room at the College Hill Library at the Front Range Community College will be determined during the upcoming 5-year CERCLA review of the Site.
137. 8.1.1 Clarify the delisting process. How will the de-listing process differ from the certification process? We have asked for the criteria for certification, but still have not received the information.	EPA, not DOE, files the Notice of Intention to delete a site from the NPL. Deletion from the NPL is not an area that is appropriately addressed in the Proposed Plan, and will be considered later during site close-out activities.
138. 8.1.2 How will the Covenant's Bill be enforced if the state has no jurisdiction in the refuge outer perimeter associated with the monitoring system?	The Covenant with the state is not applicable to the refuge. The refuge act provides DOE the right to access to monitoring systems on refuge lands.
139. 8.1.3 The site should clearly have a time frame identified to determine when cleanup levels will be achieved for groundwater. It is assumed if the cleanup of the soils was adequate for radionuclides, we will have near term data to verify if the soil remediation was adequate.	The site will have 5-year reviews mandated by CERCLA. These 5-year reviews will look at data and determine whether remediation is working sufficiently. The outcome of 5-years reviews range from requiring additional or alternative remediation to canceling any follow-on 5-year reviews.
140. 8.1.4 Prior to delisting the site, we expect to see an identification of deficiencies and any corrective measures regarding	EPA, not DOE, files the Notice of Intention to delete a site from the NPL. Deletion from the NPL is not an area that is

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work products if there were any identified. We specifically ask for a description of the deficiency for the Solar Pond Treatment Unit, the 991 area, and the cover at the Original Landfill. We ask the RFCA Parties prepare a plan as to how these issues will be resolved and a schedule of when actions will be taken to mitigate the issues prior to approval of the CAD/ROD.	appropriately addressed in the Proposed Plan, and will be considered later during site close-out activities.
141. 8.2.1 The document lacks the details of how the land transfer from DOE to the Service will occur.	The Proposed Plan is written to guidance under CERCLA, which does not call for outlining the transfer to the USFWS.
142. 8.2.2 The remedial action objectives were met if institutional controls were in place. There are several monitoring systems outside of the DOE lands that are within the Service boundary that will not comply with Applicable or relevant and appropriate requirement (ARARs).	The ARARs (surface water standards) are met in the Peripheral OU.
143. 8.2.3 Community acceptance criterion should be addressed in the CAD/ROD. Without having the opportunity to evaluate the language in the final CAD/ROD, we are interested in the evaluation process the RFCA parties will utilize when reviewing community acceptance based on comments received in writing and at the public meeting held on August 31.	Community acceptance criteria is addressed in the CAD/ROD. The process under CERCLA is for the Proposed Plan to be available for public review and comment. All comments received are addressed in this comment response document and attached to the CAD/ROD. The CAD/ROD will be available to the public upon approval by the regulators.
144. 8.2.4 We ask for a closeout meeting to discuss how the site will be maintained. We also want to discuss how the fences and warning signs will be properly installed and maintained.	Any meetings that occur as a part of the CERCLA public comment process must occur for the general public's benefit. CERCLA does not allow meetings during the process with individual organizations.
145. 8.3.1 We understand funding has been made available to purchase mineral rights. The plan is lacking the evaluation process to determine the dollar amount assigned to the natural resource damages.	An assessment of natural resources damages is not required as part of the Proposed Plan. The recently passed legislation providing funding for DOE to purchase mineral rights settles natural resources damages claims arising from hazardous substances releases identified in the Rocky Flats Administrative Record as of the date of the Act. As such, there is no need to evaluate natural

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	resources damages at Rocky Flats and consequently, no evaluation will be prepared.
146. 8.3.2 Provide the City and County of Broomfield and the City of Westminster with a copy of the evaluation of the damages.	An assessment of natural resources damages is not required as part of the Proposed Plan. The recently passed legislation providing funding for DOE to purchase mineral rights settles natural resources damages claims arising from hazardous substances releases identified in the Rocky Flats Administrative Record as of the date of the Act. As such, there is no need to evaluate natural resources damages at Rocky Flats and consequently, no evaluation will be prepared.
147 9.2.2 We also specified the chilies of the hill to waive	An accomment of notional recognized demonstration at a social demonstration
147. 8.3.3 We also question the ability of the bill to waive future liabilities for DOE in the event there are further damages.	An assessment of natural resources damages is not required as part of the Proposed Plan. The recently passed legislation providing funding for DOE to purchase mineral rights settles natural resources damages claims arising from hazardous substances releases identified in the Rocky Flats Administrative Record as of the date of the Act. As such, there is no need to evaluate natural resources damages at Rocky Flats and consequently, no evaluation will be prepared.
148. 9.1 The City and County of Broomfield and the City of	DOE appreciates the long history of public involvement at Rocky

148. 9.1 The City and County of Broomfield and the City of Westminster were the only public members that took the time to comment on the Rocky Flats Site Post-Closure Public Involvement Plan, dated October 2006. We were very disappointed to see our comments were not given any weight, nor were they even dispositioned to allow for a fruitful discussion.

Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council. Post-closure public involvement is addressed in the LM Post-closure Public Involvement Plan, which is dated

Oct. 2005. As noted in the PCPIP, future updates to the plan will be made as needed, but no more frequent than annually.

149. 9.2 We once again ask the document be revised to incorporate the needs of the downstream municipalities.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council. Post-closure public involvement is addressed in the LM Post-closure Public Involvement Plan. As noted in the PCPIP, future updates to the plan will be made as needed, but no more frequent than annually.

150. 9.3 The Public Involvement Plan should be evaluated on an annual basis with the input from local governments. Based on a recent court decision in the *Moses Lake case*, the court recognized that it would need to dispute what the phrase "participate in the planning and selection of the remedial action" found in CERCLA truly means. We understand the decision recognizes the local government statutory right to participate in the cleanup decision-making process beyond the current public participation process currently implemented by DOE. Long-term stewardship is a key aspect of the cleanup process and we expect DOE to extend the policy to our governments, especially impacted governments. We are asking to be involved and kept apprised of the long-term stewardship controls applicable to the site.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council. Post-closure public involvement is addressed in the LM Post-closure Public Involvement Plan. As noted in the PCPIP, future updates to the plan will be made as needed, but no more frequent than annually.

151. 9.4 Please refer to our several letters regarding long-term	DOE appreciates the long history of public involvement at Rocky
stewardship and our role as downstream communities.	Flats. DOE intends to continue to interact with all interested parties
	and stakeholders regarding issues of notification and
	communication. The RFLMA is the regulatory agreement which
	will describe implementation of the requirements from the
	CAD/ROD. The RFLMA will be released for public review and
	comment. The Rocky Flats Stewardship Council has been
	established by law as the public organization charged with
	facilitating communication between DOE and the public
	concerning its post-closure responsibilities. Broomfield,
	Westminster and Northglenn are members of the Rocky Flats
	Stewardship Council. Post-closure public involvement is addressed
	in the LM Post-closure Public Involvement Plan. As noted in the

152. 9.5 We anticipate the post-closure document will be released for review these upcoming months for our evaluation and input.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

PCPIP, future updates to the plan will be made as needed, but no

more frequent than annually.

153. 10.1 We ask to be kept apprised of the drafting of the post-RFCA.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and

comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

154. 10.2 We ask the language pertaining to downstream communities and their role with water management be included in the post-closure document.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

155. 10.3 The post-RFCA should, as a minimum, include the details of the enforceability of the surface water standards, a continuation of the Water Working Group, Attachment 1 list of analytes, ICs, notifications, public participation plan, and other key factors related to long-term stewardship.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

156. 10.4 We ask to be kept apprised of the upcoming 5-year review. We ask to have sufficient time to review and evaluate the

An appendix to the RFLMA will describe the public involvement roles and processes. The RFLMA will be made available for

information related to the review.	public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.
	compliance with CERCEPT, RCRT, and the CITWIT.
157. 10.5 We ask to accompany the team during the physical tour of the remedy for the 5-year review.	An appendix to the RFLMA will describe the public involvement roles and processes. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

## Letter from City of Northglenn, dated September 13, 2006

1. It is difficult to evaluate the Proposed Plan and the preferred alternative without knowing the details of the technical and regulatory aspects of the post-RFCA. We do not understand the need for concealment, nor do we understand the change in policy to keep downstream communities from participating in language that protects our communities and preserves our assets in a fiscally and environmental manner. We reserve the right to readdress our comments and concerns identified in this letter once we have an opportunity to evaluate the language in the post-RFCA. It is relevant that the post-RFCA document be released to the public for comment with a minimum of 60 days for review. Past practice for formal review of the RFCA document should justify a formal review of the final post-RFCA or any other post-closure document.

Approval of the CAD/ROD will select the alternative and establish the requirements to implement that alternative. More detailed information describing how DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the RFLMA. The RFLMA will be made available for 30 days for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

2. With remaining residual contamination on-site, Northglenn wants sufficient reassurance that the site will remain in a safe configuration to protect human health and the environment for the life of the contaminants. Given the lack of detail on several key, post-closure management issues, Northglenn is hesitant to fully endorse the Proposed Plan without additional commitments to ensure the downstream communities will not be affected.

The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD to ensure the protection of human health and the environment. The RFLMA will be released for public review and comment.

3. Revise the Proposed Plan to include language that local

DOE appreciates the long history of public involvement at Rocky

municipalities impacted by surface water from the RFETS shall be part of the technical process to evaluate and develop monitoring specifications for the post-closure monitoring and maintenance plan and develop consensus recommendation to the decision-makers post-closure. For years, downstream communities have had an integral role with the development of monitoring criteria during technical group discussions to implement changes to the monitoring plans at the site. Their role was clearly delineated in the RFCA and detailed in the *Integrated* Water Management Plan for the Rocky Flats Environmental Technology Site, dated August 1996. The Water Working Group's purpose as stated in the RFCA, Appendix 5, is to develop consensus recommendations to the decision-makers regarding decisions and actions related to water quality at, or downstream of RFETS. These discussions identified the needs and changes in monitoring scope as dictated by changes in the Rocky Flats Environment Technology Site operations and infrastructure. In addition the working group was tasked to work towards a longterm stewardship monitoring system that would continuously evaluate and support data quality objectives.

Flats. Implementing agreed-upon post-closure monitoring and maintenance will be addressed in the RFLMA, which will be subject to public review and comment.

4. Revise the Long-Term Surveillance and Maintenance Plan (LTSMP) document to state the LTSMP will be reviewed annually with the current partnership between DOE, EPA, CDPHE, and downstream municipal water users. The Proposed Plan refers to the Long-term Surveillance and Maintenance Plan (LTSMP) as the document that identifies the long-term stewardship criteria. The LTSMP clearly excludes the continuation of the current process to discuss technical issues associated with the monitoring and surveillance systems at the site. Northglenn was disappointed when Legacy Management decided to not adhere to the Public Participation Plan that identified the Interim Long-term Surveillance and Maintenance Plan as a public document to be released for our review and evaluation. To this date we have not received justification from

An LTS&MP has not been issued and is not part of the Proposed Plan. Specifics of post-closure long-term surveillance and maintenance activities will be addressed in the RFLMA. The final IS&MP, an internal working document, was released to the public in December, 2005 and is available on the Legacy Management website at

http://www.lm.doe.gov/land/sites/co/rocky\_flats/rocky.htm.

Legacy Management as to why they deviated from their document and the RFCA to include participation of the Water Working Group to maintain and guide a long-term partnership between local governments, DOE, EPA, and CDPHE.

Revise the Proposed Plan to specify quarterly data exchange meetings will be held with DOE, CDPHE, downstream municipalities, and EPA, to review data, evaluate trending, analyze sampling needs, and/or discuss corrective actions. We understand there may not be surface water discharges from the terminal ponds for several years, but quarterly monitoring will continue at the site and it will need to be reviewed and discussed. Legacy Management is reminded of their August 11, 2004 commitment made to downstream municipalities to continue the quarterly data exchange meetings with our communities for a minimum of 2 years. On September 11, 2006, at the Rocky Flats Stewardship Council meeting, Mike Owen committed to open communication with local governments. This commitment is a confirmation by Legacy Management to continue the much needed quarterly data exchange meetings with downstream communities to continue to evaluate an integral monitoring plan. The current communication process with downstream communities, is not intended to replace the public process with the Rocky Flats Stewardship Council (RFSC) but instead be in addition to the public involvement plan identified by Legacy Management.

The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

6. Northglenn asks that the document be revised to incorporate the previous notification and communication process as identified in Broomfield's letter to Audrey Berry, dated September 16, 2005.

DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

7. Revise the LTMSP and IMP to state: In the event stationary plumes begin to migrate, a risk evaluation will be performed for the contaminant or contaminants of concern. The document is lacking the means to evaluate stationary groundwater plumes and their potential risk long into the future in the event they migrate or create a new pathway. The RI/FS and the Proposed Plan do not consider the need to continue monitoring stationary plumes post-closure in the event hydrological conditions change. The RI/FS states these plumes *do not require further studies to evaluate risk to human health and the environment* and Northglenn agrees with this statement based on current data.

An LTS&MP has not been issued and is not part of the Proposed Plan. The RI/FS evaluated all groundwater constituents to determine analytes of interest (AOIs). The AOIs that formed contiguous, mapable plumes were further evaluated to determine their potential to impact surface water. The potential impacts of groundwater discharge to surface water were evaluated at the Area of Concern (AOC) and Sentinel wells which were selected by the Water Working Group regardless of whether the groundwater plumes are retreating, migrating or stationary (i.e., at steady state). The evaluation results indicated that AOIs in five groundwater areas have the potential to impact surface water based on results at the AOC and Sentinel wells and/or contaminant transport model predictions.

There is a process identified to evaluate steady-state groundwater plumes in the Fiscal Year 2005 Integrated Monitoring Plan, Revision 1, dated September 2005 (IMP), which identifies AOC, Sentinel, and Evaluation wells. These wells are located so that they will detect potential changes in the groundwater plume configurations at the site whether they are currently considered to be in steady state or migrating downgradient. If groundwater monitoring results show statistically increasing trends at the AOC, Sentinel, or Evaluation, the IMP requires more frequent monitoring and evaluations for action, if deemed necessary. Since the water quality standards used for evaluation are deemed to be protective of human health and the environment and statistically significant impacts to water quality will be evaluated per the IMP, it is not necessary to revise the document to include a risk evaluation. Post-closure monitoring, identified in the IMP, will be implemented through the RFLMA, which will be offered for public review and comment.

8 Revise the document to reflect language in the RFCA Attachment 5,C,2 that reads: *Groundwater plumes that can be shown to be stationary and do not therefore present a risk to surface water, regardless of their contaminant levels, will not* 

The IMP identifies sufficient monitoring for all groundwater plumes (whether they are in steady-state or migrating) and contains a systematic process for evaluations and potential actions if statistically increasing contaminant trends are observed. Where require remediation or management. They will require monitoring to demonstrate that they remain stationary. Based on the changes to the topography and potential hydrology at the site, there needs to be sufficient monitoring to determine if the groundwater plumes remain stationary and do not pose a risk. The RI/FS does not address future evaluations for all identified groundwater plumes. The process outlined within the RI/FS does not evaluate impacts to the creeks holistically.

possible, the future impact of groundwater plumes on surface water were evaluated in the RI/FS using contaminant fate and transport modeling. Modeling was performed for the significant volatile organic compound plumes to predict their future impact on surface water quality. Contaminant fate and transport modeling was not conducted for the metal AOIs because the metal plumes are limited in areal extent and do not currently pose a threat to surface water. Uranium was also not modeled because the primary uranium plume at the site, which occurs in the area of the Solar Evaporation Ponds, is already entering North Walnut Creek and the water quality impacts are well known. A groundwater interception and treatment system is already installed in this area. Post-closure surveillance and maintenance activities will be addressed in the RFLMA, which will be subject to public review and comment.

9. Revise the document to state all exceedances of groundwater action levels shall be reported to downstream communities once DOE becomes aware of the data. In addition, the data shall be reported quarterly and summarized annually to all parties, including downstream municipalities.

The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

10. Revise the document to add "downstream communities" to the notification and communication process identified in the Plan.

DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public.

11. Revise the document to include the process on implementation of institutional controls. Define how institutional controls will be implemented, how they will be evaluated, how

The CAD/ROD states that institutional controls will be maintained until the concentrations of hazardous substances in soil and groundwater are at levels so as to allow for unrestricted often they will be evaluated, and by whom.

use and unlimited exposure, and/or until such time as engineered components of the remedy are no longer needed. DOE will be responsible for maintaining institutional controls. DOE will inspect the site relative to institutional controls no less than annually, and the CAD/ROD contains specific timeframes for addressing and reporting activities that are inconsistent with the objectives of the institutional controls. Institutional controls will be addressed in the regular reporting that will be made available to the public and will be evaluated in CERCLA periodic reviews. Conditions in the Peripheral OU are such that they allow for

12. Incorporate language and codify it to ensure municipalities are included with any decision made at the Rocky Flats site that may impact surface water quality. Impacted municipalities should be part of the decision making process to reevaluate any proposed changes.

All rulemakings held by the Colorado Water Quality Control Commission related to use classifications, standards, or temporary modifications in Big Dry Creek have included and in the future are expected to include downstream communities. The rulemaking process allows for participation in the rulemaking as parties or as non-parties, and for the submission of written or oral testimony.

unrestricted use and unlimited exposure. Therefore, no institutional controls are needed for the Peripheral OU.

13. State in the document that any revisions or justifications to change the standard/action levels for groundwater shall be based on the surface water use classifications and not jeopardize surface water quality. Per RFCA, the temporary modifications were developed *together with other stakeholders* (i.e., the local municipalities that are impacted by surface water from the RFETS). This collaboration should continue post-closure.

All rulemakings held by the Colorado Water Quality Control Commission related to use classifications, standards, or temporary modifications in Big Dry Creek have included and in the future are expected to include downstream communities. The rulemaking process allows for participation in the rulemaking as parties or as non-parties, and for the submission of written or oral testimony.

14. Revise the Long-term Monitoring and Surveillance Plan and Integrated Monitoring Plan to clarify the process to site a groundwater well in the refuge in the event a well is needed to evaluate the potential migration of a groundwater plume.

The Peripheral OU will be transferred from DOE to USFWS, and will become the Rocky Flats National Wildlife Refuge. The RI found that conditions in the Peripheral OU, including groundwater quality, were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary

for the Peripheral OU. Plans for use of groundwater by USFWS in the Refuge are beyond the scope of this CAD/ROD; however, information on Refuge management may be found in the CCP for the Rocky Flats National Wildlife Refuge prepared by USFWS.

The Refuge Act allows siting monitoring wells in the refuge and provides for DOE's access. DOE will be required to maintain and protect any wells to ensure that they continue to function as designed. Requirements for monitoring wells will be included in the RFLMA.

15. Revise the Proposed Plan to include an overlaid map of the DOE retained lands and the refuge area maps to reflect the location of the monitoring stations in relation to the boundary. Also revise the maps identifying surface and groundwater monitoring locations.

Figure 10.1 of the RI/FS shows the relationship of the Central Operable Unit (OU) boundary relative to the IMP groundwater monitoring wells (AOC and sentinel wells) and surface water monitoring locations (Point of Compliance [POC], Point of Evaluation [POE], and Point of Measurement [POM]). All of the AOC, Sentinel, and Evaluation wells are located in the Central OU. The POCs located downgradient of terminal ponds (GS11, GS08, and GS31) are located adjacent to the eastern (downstream) edge of the Central OU. The background surface water monitoring station (GS05), the POCs at Indiana Street (GS01 and GS03), and the boundary wells (41691 and 10394) are located in the Peripheral OU.

16. Revise the Proposed Plan to state ICs will apply to the boundary wells. Revise maps and figures to include a delineation of the groundwater boundary wells. The Plan should also include a statement that the land/area the wells are located in will be retained by DOE. Northglenn is concerned the Proposed Plan does not address any institutional controls to prevent siting groundwater wells in the refuge to be used for irrigation or for other uses. The Proposed Plan states: the construction or operation of groundwater wells is prohibited; except for remedy related purposes.

Boundary wells are not required by the CAD/ROD. Although boundary wells are not located within the DOE-retained lands, the Refuge Act provides for DOE's access to them, and DOE will be required to maintain and protect these wells to ensure that they continue to function as designed. Requirements for monitoring at the boundary wells will be included in the RFLMA.

17. Revise the document to clarify how groundwater wells will be secured and identified. We expect to have a fence around the perimeter of the groundwater wells that are located outside of the DOE-retained lands. These wells have to be clearly marked and labeled to prevent public access and intrusion.

AOC, sentinel, and evaluation wells are located within the Central OU and are within the boundaries of the DOE-retained lands. Monitoring wells that are outside the DOE-retained lands will be protected and maintained, which will be described in more detail in the RFLMA.

18. The fence for the boundary wells should be identified as a legal control to protect the monitoring system for the remedy. Layering is of utmost importance in the event one control fails. The need to protect these wells is founded on the importance to gather groundwater data to evaluate the remedy.

AOC, sentinel, and evaluation wells are located within the Central OU and are within the boundaries of the DOE-retained lands. Monitoring wells that are outside the DOE-retained lands will be protected and maintained, which will be described in more detail in the RFLMA.

19. Revise the document to state all groundwater monitoring data and any changes in hydrologic conditions will be reported quarterly and summarized annually to all parties and impacted municipalities. Any exceedances of groundwater action levels will be reported to all parties and impacted municipalities concurrently. The document refers to the Long-term Surveillance and Monitoring Plan. Once changes or physical conditions exist that could impact surface water quality, downstream municipalities should be notified via telephone or fax.

An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring data. Reports provided pursuant to the CAD/ROD will be made available to the public. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication.

20. Revise the Proposed Plan to state that any temporary modifications will revert to the stream standards once the final remedy has been completed. Temporary modifications were developed together with local municipalities that are impacted by surface water from the RFETS. RFCA states: *following completion of active remediation, the surface water must be of sufficient quality to support any surface water use classification in both Segments 4a/4b and 5.* Stream standards must be met at the point of discharge, once the temporary standards expire in 2009.

The remedy for groundwater is not complete. It will be complete when all three of the Groundwater RAOs and the Surface Water RAO are met. The remedy – in the form of groundwater treatment systems and continued monitoring – has been put in place. DOE will continue to monitor groundwater and surface water with the goal of achieving the underlying surface water standards when the temporary modifications expire in 2009. More information on the temporary modifications and completion of the remedy at Rocky Flats may be found in the docket of the 2004 Water Quality Control Commission's Rulemaking on Regulation No. 38, to which the Cities of Broomfield and Westminster were parties.

21. Revise the document to state how the institutional controls

DOE will be required to maintain and protect these locations to

will apply to the surface water monitoring stations inside and outside of the DOE retained lands.

ensure that they continue to function as designed, regardless of their location relative to the Central OU. Per the Refuge Act, DOE may access any areas, whether in the Central OU or Peripheral OU, that are required for monitoring or remedy purposes.

22. Define how the institutional controls will be implemented for the use of surface water, how they will be evaluated, how often they will be evaluated, and by whom.

Any information associated with institutional controls should also be relayed to the public and downstream communities. The application of ICs at the Indiana Street POCs are of particular concern to downstream communities.

Signage, federal ownership, and an environmental covenant issued to the State of Colorado are the specific physical and institutional controls to be used to ensure the protection of surface water from unauthorized uses. Implementation of the physical and institutional controls will be inspected periodically by DOE, corrected or repaired if required, and reported in an annual report. These control, inspection, and reporting actions are listed in the Proposed Plan for Alternative 2, the Preferred Alternative. Approval of the CAD/ROD will establish these proposed actions as binding regulatory requirements for DOE. More detailed information describing how DOE will meet the requirements of the CAD/ROD will be written in the RFLMA. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

23. Revise the document to identify how the institutional controls will be enforced and the schedule to implement corrective actions in the event a control fails.

The suggested revisions are inappropriate for the Proposed Plan, which develops broad alternatives for remedial action. Approval of the CAD/ROD will select the alternative and establish the requirements to implement that alternative. More detailed information describing how DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the RFLMA. The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

24. Revise the document to state the surface water monitoring stations outside of the DOE-retained land will be managed

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any consistently with the surface water monitoring stations within the DOE-retained lands.

kind are necessary for the Peripheral OU. Future incidental use of surface water in the refuge area as you described similarly poses no threat and no controls are required. The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. The CAD/ROD requires DOE to maintain and protect these locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU.

25. Revise the document to state a legally mandated fence will be constructed around the perimeter of the surface water monitoring stations outside of the DOE-retained lands. These surface water monitoring stations should be clearly marked and labeled to prevent public access and intrusion.

The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU.

26. The fence for the surface water monitoring stations outside of the DOE-retained lands and the fence around the DOE retained lands should be identified as a legal control in the Proposed Plan to protect the monitoring system for the remedy. Layering is of utmost importance in the event one control fails. The need to protect these surface water monitoring stations is founded on the importance to gather surface water data to evaluate the remedy and protect surface water quality downstream of Rocky Flats.

DOE will be required to maintain and protect surface water monitoring locations outside of the DOE-retained lands to ensure that they continue to function as designed, regardless of their location relative to the Central OU. The concept of layered controls is embodied within the selected remedy for the Central OU, however not in the form of layered fences. The layered controls include a signs as a required physical control, ongoing ownership by DOE to prevent digging, water usage, and other prohibited activities, routine presence and observation by DOE and contractor staff, and an environmental covenant with the State of Colorado restricting use of the Central OU in perpetuity

27. Revise the document to state all surface water monitoring data will be reported quarterly and summarized annually to all parties and impacted municipalities. The document refers to the Long-term Surveillance and Monitoring Plan. Any changes in concentrations or exceedances of surface water action levels and/or

An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD requires that DOE prepare an annual report discussing remedy performance and site conditions; this annual report will include environmental monitoring data. DOE will also prepare quarterly reports that include environmental monitoring

standards should be relayed concurrently to impacted municipalities and the regulators. Once changes or physical conditions exist that could impact surface water quality DOE should notify downstream communities concurrently with the regulators.

data. Reports provided pursuant to the CAD/ROD will be made available to the public.

28. Revise the LTSM Plan to state as a minimum the terminal ponds on Walnut Creek will be sampled annually for analytes identified in Attachment 5 of RFCA. The Long-term Surveillance and Monitoring Plan (LTSM Plan) is referred to in the Proposed Plan as the document that identifies the monitoring and surveillance post closure. As written in the LTS&M Plan, surface water quality in the terminal ponds will be measured only when there is a pond discharge. To effectively evaluate the remedy, the water quality in the terminal ponds or an identified location at the site should be performed annually as a minimum. Woman Creek is unique in that not all the runoff of surface water is capture in C-2, therefore language should be added to the Plan for Legacy Management to work with Westminster and the Woman Creek Reservoir Authority to identify a location that accurately reflects the effectiveness of the remedy on the south side of the site.

An LTS&MP has not been issued and is not part of the Proposed Plan. The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD. Regarding the commenter's request for a new monitoring location on Woman Creek, the RFCA parties worked with the communities in establishing the current monitoring locations. A primary purpose of the agreed upon monitoring network was to assure adequate information would be collected for remedy evaluation. No new location will be sited at this time. The entire monitoring system is subject to ongoing review so that locations and analytes can be dropped or added as conditions warrant.

29. Revise the Proposed Plan to include the following language: The Surface Water and Groundwater Working Group will be tasked to develop an Integrated Water Management Plan to develop a consensus recommendation to the decision-makers regarding decisions and actions related to water quality at, or downstream of RFETS. The group will identify necessary actions necessary to protect water quality and the watershed and recommend programmatic activities to effectively manage water resources. The group will provide a comprehensive management tool to identify the actions to take regarding pond management. This tool will maintain and guide a long-term partnership between local governments, DOE, EPA, and CDPHE. The goal of the group will be to provide a comprehensive management tool to implement

The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD. Therefore, a Surface Water and Groundwater Working Group and an Integrated Water Management Plan are not required.

DOE's long-term commitment for protecting water and related ecological resources. It is imperative to include this language within the body of the Proposed Plan and the CAD/ROD to ensure a comprehensive water management plan is developed based on diminished flows, protection of ecological resources, and application of institutional controls necessary to protect water for all uses.

30. Include language stating that the City of Westminster and/or the Woman Creek Authority reserves the right to sample surface water quality on an annual basis to determine surface water quality within the C-2 terminal pond or specified location on Woman Creek.

The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD.

31. Include language that the City & County of Broomfield will sample surface water quality during a discharge into Walnut Creek and they reserve the right to sample surface water quality on an annual basis to determine surface water quality within the terminal ponds on Walnut Creek. If the regulators do not have enforceability responsibilities in the refuge area to ensure surface water quality, the City & County of Broomfield, City of Westminster, City of Northglenn, and the Woman Creek Reservoir Authority may seek to have the POCs, groundwater wells, and drainage measuring stations placed at the Central OU boundary.

The CAD/ROD states that the surface water monitoring requirements outlined and those that will be contained in RFLMA are adequate to ensure the protectiveness of the remedy and that water leaving Rocky Flats continues to meet water quality standards. Consequently, sampling of the terminal ponds is not a requirement of the CAD/ROD.

- 32. Revise the language in the Proposed Plan to ensure the IMP/Water Working Group process continues post-closure. To assess the direction and magnitude of contaminant movement and groundwater migration, it is essential to evaluate data as generated to compare it against predetermined outcomes and identify whether reported concentrations are routine or indicative of worsening conditions. The Integrated Monitoring Plan (IMP) served to:
- Develop data quality objectives with a goal to ensure compliance for surface water,

The CAD/ROD contains monitoring and maintenance requirements that will be implemented by the RFLMA and includes the majority of attributes from the closure monitoring system as recommended by the IMP Water Working Group and contained in the 2005 and 2006 IMP. The monitoring data will continue to be provided to the public, cities and the LSO via the LM quarterly and annual reports. In addition, LM will present these data to the LSO, its constituents and the public for review, evaluation, discussion and comment. DOE does not anticipate any changes to the monitoring system in

- Develop objectives and monitored pond discharges,
- Develop objectives and monitored discharges for the terminal detention pond discharges,
- Develop objectives and monitored off-site discharges for community water supply management,
- Develop objectives and monitored groundwater interactions,
- Develop objectives and monitored special project activities such as D&D of buildings including close-in air monitoring and placement of groundwater wells to track migration or impacts of groundwater plumes near the buildings,
- Develop objectives and monitored discharges from treatment units,
- Develop objectives and monitored the Present Landfill and Original Landfill,
- Develop objectives and monitored air,
- Develop ecological objectives and monitored flora and fauna, and
- Review National Permit Discharge Elimination System
   (NPDES) proposed revisions. To minimize the need for several
   meetings post closure, we recommended the Water Working
   Group and the Quarterly Data Exchange meetings be combined.
   During these meetings the monitoring plans could also be
   evaluated annually.

the near future.

33. Revise the document to include language that fencing as an enforceable control and will be used to secure the POCs. The document does not state how and if institutional controls will apply at the point-of-compliance monitoring stations, boundary groundwater wells, or other monitoring stations outside of the proposed boundary. The document is silent on physical controls and Institutional Controls for the Points-of-Compliance (POCs). We understand the language in the post-closure document will have boundary signs mandated as a legal control. We do not understand the issue the RFCA Parties have with mandating the fence as a

The CAD/ROD requires that DOE monitor surface water at POCs at the discharge points from the three terminal ponds (A-4, B-5 and C-2), as well as at the points where Walnut Creek and Woman Creek cross the site boundary near Indiana Street. DOE will be required to maintain and protect these locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU.

legal control. It is ironic that the only two enforceable surface water monitoring stations will not be secured and protected from the general public. In the event the POCs have to be relocated, the RFCA Parties will work with the impacted communities during the relocation process.

34. Revise the boundary map to include stamped areas retained by DOE for the Points-of-Compliance, stamped areas retained by DOE for the groundwater wells at the site boundary, and stamped areas retained by DOE for surface water stations located outside of the DOE retained lands.

DOE is developing a map or maps to address your comment.

35. It is Northglenn's position that all monitoring stations and wells be maintained, operated, and funded by DOE. We believe remedy evaluation and remedy protection have far greater justification to determine a boundary than the land management practicalities that were provided as justification for the proposed boundary.

Approval of the CAD/ROD will select the alternative and establish the requirements to implement that alternative. More detailed information describing how DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the Rocky Flats Legacy Management Agreement (RFLMA). The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA. DOE will be required to maintain and protect any monitoring or remedy locations to ensure that they continue to function as designed, regardless of their location relative to the Central OU.

36. Revise Plan maps to expand the DOE retained lands to include GS-05 and GS-09. Revise the Proposed Plan to address the process to potentially locate future monitoring systems outside of the DOE retained lands. There is no justification to exclude GS-05 and GS-09 water stations from DOE retained lands. They are not located in steep areas, nor are they in riparian areas. These monitoring stations, located outside of the DOE-retained lands, provide crucial data. This data allows a proactive approach to identify a potential issue close to the source rather than a reactive approach that could impact water quality in the creeks or ponds.

There is no justification to expand the area of DOE retained lands for purpose of access. Per the Refuge Act DOE may access any areas, whether in the Central OU or Peripheral OU, that are required for monitoring or remedy purposes. However, consultation with USFWS following direct field investigation indicated several concerns about encroachment on habitat and maintenance of the CAD/ROD physical controls. Based on these concerns, the boundary was expanded outward in a few areas, most notably south of the Original Landfill (see Figure 3). Land-use issues affecting Rocky Flats National Wildlife Refuge Lands are addressed in the

U.S. Fish & Wildlife Service's Environmental Impact Statement. DOE will be required to maintain and protect any monitoring locations in the wildlife refuge to ensure that they continue to function as designed. Specific monitoring requirements will be addressed in the RFLMA, which will be made available for public comment.

37. Allow the downstream communities consultant or technical staff to assist with a final determination of the southern boundary. Based on proposed activities identified in the Comprehensive Conservation Plan (CCP) drafted by the Fish and Wildlife Service, the southern portion of the refuge will have much more activities than the north side. Activities such as hunting, horseback riding, and other off-trail activities could jeopardize the integrity of the monitoring stations near the Original Landfill. Our concern is the potential of public damage to the remedies and the monitoring stations that evaluate the remedy.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. DOE will be required to maintain and protect monitoring equipment to ensure that they continue to function as designed.

Revise the document to state the fence around the Central OU will be an enforceable control associated with the remedy and placed around DOE-retained lands and monitoring systems outside of the DOE retained lands. Include the 903 Americium area within DOE retained lands. Revise associated maps. To state: *These* levels of radioactivity are also far below the 231 pCi/g activity level for an adult rural resident that equates to the 25 mrem/year dose criterion specified in the Colorado Standard for Protection Against Radiation may be simplifying the risk based on dose. The issue with this area is to prevent digging, to prevent dust dispersion and to control erosion to protect surface water quality. As this area is not within the Central OU, no IC's will be associated with this area. It would be irresponsible to allow digging or installation of groundwater wells for irrigation or other domestic use in this area. Activities in this area should not be allowed, especially horseback riding, trails, or any activity that could generate additional dust or increase the potential for erosion.

A fence surrounding the Central OU is not required to protect human health or the environment, nor is it required to ensure effectiveness of the remedy. However, DOE and USFWS have agreed that a four-strand barbed wire cattle fence would facilitate land management and therefore the fence will be installed and maintained as a best management practice. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. These signs will be required along the perimeter of the Central OU at an interval consistent with DOE standards for land management and CHWA requirements. DOE intends to install these signs on the fence surrounding the Central OU.

Based on the Independent Verification and Validation review by ORISE in the 903 Pad and Inner Lip Area, there were additional hot spots that were identified in the 903 Pad and Inner Lip area. We therefore question the potential for hot spots in the Americium Area. Revise the map to include the Americium Area in the DOE retained lands. We are also concerned that if grazing were allowed in the Americium Area, erosion would increase. This could potentially impact water quality in Woman Creek. The runoff in this area would not be captured in C-2 and could potentially leave the site without being monitored.

39. Revise the Proposed Plan to include language to allow for adding to the monitoring system outside of DOE retained lands if warranted by an evaluation of the RFCA Parties and the Water Working Group. It is premature to assume there is sufficient data to evaluate the remedy for the Original Landfill. Northglenn questions the integrity of the cover on the landfill and the ability to keep the buried waste segregated from groundwater infiltration and infiltration from precipitation. Our concern is with the current seeps on the cover that now have a higher potential to release contaminants directly into Woman Creek that previously were not mobile or at the surface to flow directly into Woman Creek. Per the document, the cover is effective and protective based on the identified pathways that were evaluated. With the current seeps we now have a pathway that was not evaluated. We question the integrity of the cover and the numerous seeps that have developed since the placement of the cover. Westminster, the City and County of Broomfield, and their Professional Consultants voiced concerns with the placement of a shallow cover to prevent groundwater passing through the waste and surfacing at the cover. There was nothing in the landfill closure document to prevent the groundwater from passing through the waste and into Woman Creek. The remedy has exacerbated the situation by causing the groundwater to seep to the top of the cover and potentially have a new pathway that was not evaluated. Northglenn is concerned with the Original

Locations of groundwater monitoring wells at the Original Landfill were chosen with the approval of CDPHE and EPA. Pursuant to RCRA/RFCA, one well is up-gradient and three wells are downgradient of the OLF. If there is an increasing trend in downgradient versus up-gradient monitoring wells, or if a selected percentage of the data exceed surface water standards, the RFCA parties must consult with each other. Surface water monitoring at the OLF proceeds in a similar manner. The Refuge Act permits DOE access to the refuge area to conduct operation and maintenance, and any other obligations it may have under RFCA or the Legacy Management Agreement. The Memorandum of Agreement between DOE and the Department of Interior will likely address details related to DOE's access to the refuge lands. The Legacy Management Agreement will incorporate the requirements for monitoring at the Original Landfill that are found in the OLF Monitoring and Maintenance Plan.

Landfill IM/IRA statement: monitoring of the Original Landfill will consist of quarterly monitoring until the first CERCLA review. We understand the next 5-year review will be in spring of 2007 and with the current status of the integrity of the cover, DOE would not show due diligence if they did not continue to monitor quarterly until the next review in 2012. At this later time, there would be sufficient data to evaluate the remedy and assess effects from hydrologic changes in this area.

Northglenn supports the City of Westminster's right to ask for periodic sampling of the South Interceptor Ditch if warranted. Northglenn agrees with the list of analytes to be evaluated at the Original Landfill identified in Attachment 5, table 1. Northglenn questions the success of the restoration effort on the cover as areas still do not have established growth. We are concerned that without a successful restoration effort; Woman Creek will be vulnerable to mass loading of sediment.

40. Revise the document to provide justification for allowing a release of surface water without demonstrating compliance. The effluent from the treatment facility is not meeting stream standards for boron and manganese. The RFCA standard for boron is 750  $\mu g/L$  and the result was 1,930  $\mu g/L$ . Manganese standard was 1,858  $\mu g/L$  and the result was 5,650  $\mu g/L$ . Northglenn is concerned that water is allowed to discharge from the Present Landfill Pond into No Name Gulch knowing the effluent exceeds surface water standards. Northglenn is concerned with the language in the Present Landfill IM/IRA that states the pond will be sampled based on a "decision rule". We have no role in the decision, yet the City and County of Broomfield may be directly impacted.

Northglenn supports all actions that are protective of the City and County of Broomfield's water supply.

Northglenn does not agree with measuring compliance with the Present Landfill at the POC at Indiana.

The POC for the Present Landfill should be at the outfall of the treatment unit before it is released to waters of the State. This is

Per the CAD/ROD, the requirements for monitoring and maintenance at the Present Landfill were derived from the approved Monitoring and Maintenance Plan for the Present Landfill, which addresses water quality issues in the Present Landfill Pond. These requirements are part of the selected remedy, and will be incorporated into RFLMA.

consistent with CDPHE policy and regulations

41. The constituents causing discoloration and foam observed at the August 21, 2006 field trip need to be identified.

The orange discoloration observed in water at the Present Landfill treatment system is typical of water containing dissolved iron when it is exposed to oxygen in the air.

42. Northglenn recommends DOE have a geotechnical engineer inspect the areas and suggest actions that could stabilize the slope. There is severe subsidence and cracking in the 991 area. We are concerned that the floor of FC-4 is experiencing uplift. This area has a high potential to have both radioactive and VOC contamination that was not adequately characterized. Based on the risk analysis of the contamination, there was no pathway for the radioactive contamination. The area has massive cracks and now may have a pathway that was not analyzed in the risk analysis. We strongly disagree with DOE and the regulators that this is not a CERCLA issue as there is no longer functioning groundwater monitoring stations in this area. Any groundwater or surface water from this area flows directly into South Walnut Creek. GS-10 is directly down-gradient of this area. Elevated concentrations continue to be measured at this station. To state: To state: Well 45605 will continue to be monitored in accordance with the IMP for as long as that is feasible, in itself speaks of the need to monitor this area because of residual contamination.

The area of slope instability mentioned (in the vicinity of old SW056) is undergoing detailed and ongoing surveillance. At this time, there is no adverse impact on the surface water quality by VOCs or radionuclides as a result of the instability. VOCs are known to be present in the ground water in the vicinity of the slump while uranium (mostly naturally occurring) is known be present in the ground water site-wide. Ongoing surface water monitoring will occur to determine if there are any adverse effects from the unstable area. Regarding the deformation of functional channel FC-4 resulting from the slope instability, ongoing observation will continue and if the functionality of the channel is compromised, repairs will be made.

As the commenter points out, the surface water POE GS-10 is directly down-gradient of the area of slope instability and any erosion related sedimentation. Any adverse water quality impacts that could occur will be observed. To date, there have been none. The relevant question is not whether there is a stability problem or how to fix it; it is whether the remedy is adversely impacted by site conditions. As there is no adverse impact to the remedy at this time and there is no reason to believe there will be, the parties will continue to observe and monitor.

43. Revise the document to state: once all the treatment units are meeting their remediation action objectives, DOE will propose to de-list the site.

EPA, not DOE, files the Notice of Intention to delete a site from the NPL. Deletion from the NPL is not an area that is appropriately addressed in the Proposed Plan, and will be considered later during site close-out activities.

44. We ask that DOE provide a plan and assurances that the

Based on the extensive site characterization conducted at the site

10mg/L standard will be met by 2009 as measured at both the effluent of the Solar Ponds treatment unit and at the discharge point of the Discharge gallery for the Solar Pond Unit. The Solar Pond Treatment Unit is unable to meet the temporary modification nitrate standard. Northglenn remains concerned that the treatment facility will not be able to meet the more stringent standard of 10mg/L in 2009 when the temporary modification expires. Northglenn expects the standard to be met prior to mixing with waters of the State.

Northglenn disagrees with the statement in the Proposed Plan and the RI/FS that Continued operations of these four systems serves to protect surface water quality over short-and-long intermediate-term period by removing contaminant loading to surface water. This protection also serves to meet long-term goals for returning groundwater to its beneficial use of surface water protection. We agree the systems should serve as a final remedy, but they currently do not function as per design.

and the subsequent modeling results presented in the Groundwater IM/IRA and the Summary of Hydrologic Flow and Fate and Transport Modeling Conducted at RFETS, Golden, Colorado, dated September 2005, the RFCA Parties believe that all of the groundwater plumes at the site have been sufficiently evaluated. Furthermore, groundwater conditions at the site continue to be evaluated. As indicated, in response to Broomfield/Westminster Comment 6.1, the groundwater treatment systems are functioning as designed, especially with the recent repairs to the Solar Pond Plume Treatment System which have increased its throughput and overall efficiency. DOE will continue to monitor groundwater and surface water with the goal of achieving the nitrate standard of 10 mg/L by 2009.

Revise the Plan to state an annual report to the regulatory agencies and communities will include language pertaining to the failure of controls. Notification of any failure of controls should be made to the regulatory agencies and impacted communities as soon as DOE becomes aware of the failure. Any corrective action should also be reported to the regulatory agencies and the impacted communities and identified in quarterly and annual reports. Remedial action objectives are clearly developed to provide the foundation of clean-up actions at a site for all impacted media such as groundwater, surface water, soil, and environmental protection. It is clearly understood if the objectives are not met there are specific mechanisms such as institutional controls to ensure protection of human health and the environment. Of the seven remedial action objectives that were evaluated for the feasibility study, not one objective is completely met. Northglenn is concerned there are no controls in place to prevent digging within

The CAD/ROD and the RFLMA specify reporting requirements to the agencies. These reports will be shared with the communities.

the Wind Blown Area, a potential Pu 239/240 source. Controls need to be in place for the life of the contaminant as long as it poses a risk. Impacts to Woman Creek also have to be considered as soils enter the creek. If the details of the controls are to be addressed in the post RFCA document, we ask for a 60 day comment period for time to evaluate the details of the long-term stewardship plan and controls.

Provide a schedule of when DOE anticipates the record will be available and functioning electronically. Northglenn also asks for assurances to have public input as to what document should be in the record. Accessing information on the electronic administrative record continues to be problematic. Northglenn is concerned that the site will be de-listed prior to resolution of the problem resulting in lack of access to vital information. This information, per CERCLA, section 113, requires that an administrative record be established "at or near the facility at issue." The record is to be complied contemporaneously and must be available to the public and include all information considered or relied on in selecting the remedy, including public comments on the proposed plan. If the record is not accessible, it is not available. Most of the maps in the electronic version of the administrative record are in black and white. The maps and associated legends do not add any value to the record. Based on a \$7 billion dollar cleanup, it would have behoved DOE to enter the information into the system so that the community could access information that is of value and can be understood and evaluated. Northglenn is disappointed to have a regulatory representative state the record has to be available electronically, but the regulation does not state it has to be operable. This statement is in direct contrast to the requirement of the law.

The online version of the Administrative Record, available at <a href="http://12.17.223.12/index.htm">http://12.17.223.12/index.htm</a>, is currently operational and is undergoing continual improvements. The AR meets the requirements of Section 113 of CERCLA. Copies of documents that are difficult to read in the online AR or that have yet to be entered electronically may be obtained by contacting the LM public affairs office for the Rocky Flats Site.

47. Northglenn requests the reading room be maintained until the | The future of maintaining the reading room at the College Hill

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electron version of the administrative record is fully functioning, that the status of the reading room be clarified, and that the clarification process be public.  The Rocky Flats Reading Room, located at the College Hill Library, has served as a valuable tool to the community. Legacy Management has committed to work with the downstream communities regarding the disposition of the documents in the reading room. This commitment has not been met.	Library at the Front Range Community College will be determined during the upcoming 5-year CERCLA review of the Site.
48. Clarify the delisting process. Answer, how the de-listing process differs from the certification process. Answer: How will the Covenant's Bill be enforced if the state has no jurisdiction in the refuge outer perimeter associated with the monitoring system?	EPA, not DOE, files the Notice of Intention to delete a site from the NPL. Deletion from the NPL is not an area that is appropriately addressed in the Proposed Plan, and will be considered later during site close-out activities.
49. Prior to delisting the site, identify deficiencies and any corrective measures regarding work products. Northglenn specifically asks for a description of the deficiency for the Solar Pond Treatment Unit, the 991 area, and the cover at the Original Landfill. We ask the RFCA Parties prepare a plan as to how these issues will be resolved and a schedule of when actions will be taken to mitigate the issues prior to approval of the CAD/ROD.	EPA, not DOE, files the Notice of Intention to delete a site from the NPL. Deletion from the NPL is not an area that is appropriately addressed in the Proposed Plan, and will be considered later during site close-out activities.
50. Identify the evaluation process the RFCA parties will utilize when reviewing community acceptance based on comments received in writing and at the public meeting held on August 31 <sup>st</sup> . The document lacks the details of how the land transfer from DOE to the Fish and Wildlife Service will occur. Community acceptance criterion should be addressed in the CAD/ROD.	Community acceptance criteria are addressed in the CAD/ROD. The process under CERCLA is for the Proposed Plan to be available for public review and comment. All comments received are addressed in this comment response document and attached to the CAD/ROD. The CAD/ROD will be available to the public upon approval by the regulators.

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51. Northglenn requests a closeout meeting to discuss site maintenance and fence/sign installation and maintenance.

Any meetings that occur as a part of the CERCLA public comment process must occur for the general public's benefit. CERCLA does not allow meetings during the process with individual organizations. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public

concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

52. Northglenn requests that the Rocky Flats Site Post-Closure Public involvement Plan, dated October 2006, be revised to incorporate the needs of the downstream communities. The Public Involvement Plan should be evaluated on an annual basis with the input from local governments. Long-term stewardship is a key aspect of the cleanup process and the downstream communities expect DOE to extend the policy to our governments. Northglenn requests that we be involved and kept apprised of the long-term stewardship controls applicable to the site. Northglenn expects that the Post-closure document will be released for review for evaluation and input.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council. Post-closure public involvement is addressed in the LM Post-closure Public Involvement Plan, which is dated Oct. 2005. As noted in the PCPIP, future updates to the plan will be made as needed, but no more frequent than annually.

53. Northglenn expects to be kept apprised of the drafting of the post-RFCA.

Northglenn requests that language pertaining to downstream communities and their role with water management be included in the post-closure document. The post-RFCA should include the details of the enforceability of the surface water standards, a continuation of the Water Working Group, Attachment 1 list of analytes, ICs, notifications, public participation plan, and other key factors related to long-term stewardship. Northglenn requests to be kept apprised of the upcoming 5-year review and to have sufficient time to review and evaluate the information related to the review. Northglenn requests that their technical staff be allowed to accompany the team during the physical tour of the remedy for the 5-year review.

DOE appreciates the long history of public involvement at Rocky Flats. DOE intends to continue to interact with all interested parties and stakeholders regarding issues of notification and communication. The RFLMA is the regulatory agreement which will describe implementation of the requirements from the CAD/ROD. The RFLMA will be released for public review and comment. The Rocky Flats Stewardship Council has been established by law as the public organization charged with facilitating communication between DOE and the public concerning its post-closure responsibilities. Broomfield, Westminster and Northglenn are members of the Rocky Flats Stewardship Council.

- 54. Northglenn wanted to provide you with our views of outstanding issues and a sense of what we expect to have identified in a strong, enforceable stewardship plan:
  - The document is silent on several key issues including the implementation and oversight of the regulatory requirements.
  - There is not a clearly defined plan and procedure for institutional and physical controls.
  - The record and data management system has to be in place and functioning prior to delisting.
  - Language needs to be added to the plan as a commitment to downstream communities to provide a post-closure role regarding water management.

Approval of the CAD/ROD will select the alternative and establish the requirements to implement that alternative. More detailed information describing how DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the Rocky Flats Legacy Management Agreement (RFLMA). The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.

## Comments from Ms. Stanley, City of Northglenn and Woman Creek Authority, Public Hearing August 31, 2006

1. A proposed plan is silent on the involvement of downstream municipalities and their role postclosure. We are requesting that our representatives be part of the drafting and review of post closure documents. Furthermore, we request disposition to our comments prior to the release of the final CAD/ROD and a meeting well in advance of its release.

The purpose of the Proposed Plan is to provide the public a reasonable opportunity to participate in the decision-making process for the proposed final remedy. The final remedy will be documented in the CAD/ROD, which will be signed by DOE, EPA and CDPHE.

The CAD/ROD outlines the requirements of the remedy that DOE must meet in the future. The Rocky Flats Legacy Management Agreement (RFLMA), a legally binding agreement between DOE and regulators, implements the remedy to ensure its protectiveness of public health and the environment. This agreement has been under development by the parties for several years and supersedes the RFCA.

Although the CAD/ROD is not subject to public comment, the RFMLA will undergo a public review and comment process, including a formal public comment period.

## Comments from Ms. Elofson-Gardine, Public Hearing August 31, 2006

1. We have several concerns about this plan and the clean up, as you guys want to call it. There's quite a bit that's left over, and we would prefer to see a combination of alternatives two and three with the institutional physical controls in charge of the surface soil removed. I think it's important to create a hybrid of those two alternatives simply because there is so much left with the old and the new landfills and the 903 lip area.

The Central OU encompasses not only the former industrial area, but also the 903 lip, the two landfills, the ponds and all monitoring wells except for the two at the site boundary along Indiana Avenue. As stated in the CAD/ROD, the central OU will be fenced off, for land management, but will have signs delineating the DOE lands with restrictions clearly posted by the gates into the Central OU. Alternative 3 was not selected due to the increased cost and difficulty, and increased short-term impact to the environment, with only minimal reduction in long-term risk.

2. I think it's important to also consider rerouting groundwater for dewatering of the site. Greg Marsh will be sending in a more detailed email comment about that if you haven't gotten it already.

The Groundwater IM/IRA, released for public comment and approved by the regulators, considered a variety of groundwater treatment alternatives, including extensive use of barrier walls. The selected alternative (i.e., smaller and targeted treatment systems) were preferred due to consideration of greater overall effectiveness, CERCLA preference for treatment, and cost and time to construct. The RI/FS included the results of the Groundwater IM/IRA as part of the comprehensive analysis, and concluded that no additional remedial actions can reasonably be taken. Also, passage of the Rocky Flats National Wildlife Refuge Act in 2001 created additional considerations. The environmental impact to install the large-scale remedy suggested in this comment would be counter to one of the refuge purposes of restoring and preserving native ecosystems..

3. And the water [monitoring] turning [sic] has been grossly deficient, and it should have been maintained at a minimum of a weekly, not a quarterly level.

DOE, EPA and CDPHE believe water monitoring has been adequate to ensure that the remedy will be protective of human health and the environment.

4. Public access should be barred with clear signage detouring trespassing and noting that public tours are inappropriate for this site.

The CAD/ROD mandates the posting of signs at the Central OU boundary, notifying the WRW and the WRV that they are at the boundary of lands retained by DOE and prohibiting trespassing. The Peripheral OU is suitable for unrestricted use and unlimited exposure. Plans for management of the Refuge areas in the Peripheral OU, including public access, are beyond the scope of the CAD/ROD, but may be found in the CCP for the Rocky Flats National Wildlife Refuge prepared by USFWS.

## Email from LeRoy Moore, Rocky Mountain Peace and Justice Center, to Robert Darr dated September 14, 2006

(Note that this email was received after the close of the public comment period, however DOE has chosen to include a response.)

1. The overall conclusions of the Ecological Risk Assessment indicate that site conditions due to residual contamination do not represent significant risk of adverse ecological effects to receptors from exposure to site-related residual contamination. We strongly disagree with this assessment for two reasons. It seems to assume that near-term conditions at the site will remain unchanged, including both physical conditions and institutional or governmental systems or mechanisms of control. In the long term related to the 24,400-year half-life of plutonium-239 it is impossible to predict future physical conditions, and it is folly to assume that current governmental or institutional entities and systems of control will endure for anything like the period of potential harm resulting from residual contamination at the site. Second, entirely too little is known about genetic effects of radiological exposure to draw the conclusion that there is no significant risk of adverse effects either in the short term or the long term. Genetic specialist Dietard Tautz asserts that it may take several generations for the effects of radiation exposure to be readily apparent in some species, by which time the damage may be irreversible. He calls this a "genetic uncertainty principle" (Trends in Genetics, vol. 16, no. 11, Nov. 2000, p. 475). His work

EPA guidance which was developed based on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires decisions to be made regarding risks and appropriate remedies based on the best knowledge available at the time. The long-term uncertainties described in this comment are not unique to Rocky Flats or even DOE sites, rather they are found at almost every site covered by CERCLA. Contaminants found at commercial mining sites, for example, may include uranium-238 with a 4,500,000 year half-life and metals which essentially remain forever. To address the uncertainties models are used to predict impacts and risks into the future, using very conservative assumptions. Use of these models leads to conservative remediation decisions. Ongoing monitoring of the site conditions and a recurring 5-year review process provide information of changes or other unforeseen conditions, so that corrective actions can be taken. The 5-year review process also includes a review of new technologies which may have application to the site.

suggests the possibility of unexpected adverse effects from residual contamination on wildlife at Rocky Flats, effects that over time could extend both beyond the bounds of the site and to other organisms.

2. Air emissions present no health or environmental concerns at present and anticipated future levels. Air, therefore, was not evaluated in the Feasibility Study. DOE here effectively fails to consider the most important pathway by which minuscule particles of plutonium can be taken into the body of humans, namely, via inhalation. For as long as any particle remains lodged in the body, it continues to bombard surrounding tissue with radiation. Because of its long half-life, prudence dictates that we assume that any plutonium-239 left in the environment is likely some day to surface and be resuspended as airborne particles. Particles of 10 micrograms (10/millionths of a gram) or smaller may be inhaled. As early as 1945 the government recognized that the tolerance level for plutonium in the body of workers was one microgram (DOE, Closing the Circle on the Splitting of the Atom {1995], p. 38); a standard text in this field calls a single microgram "a potentially lethal dose" (Cotton and Wilkinson, Advanced Inorganic Chemistry [1966], p. 1102). Research on Rocky Flats workers with internal plutonium deposits as low as 5% of DOE's purportedly safe permissible lifetime body burden developed a variety of cancers in excess of what was normal for workers who had not been exposed (Wilkinson, American Journal of Epidemiology, vol. 125, no. 2, 1987, pp. 231-250). Interestingly, DOE's data on plutonium particles remains classified. In 2004 the British Committee Examining Radiation Risks of Internal Emitters concluded that cancer risk from very low doses of plutonium may be ten or more times more dangerous than allowed for by existing exposure standards (www.cerrie.org). There is no guarantee that the standards for permissible exposure on which DOE and the regulators rely for cleanup and closure of Rocky Flats adequately protect the most vulnerable members of

Monitoring programs and other studies were conducted during both the production era and cleanup phase at Rocky Flats. These data show that contaminant emissions and resulting ambient airborne concentrations during both the weapons production era and cleanup phase were always compliant with all regulatory requirements. In fact, compliance monitoring at the facility fence line showed maximum airborne radionuclide concentrations of no more than three per cent of the limiting standard during the entire cleanup phase. With completion of all accelerated actions and the attendant removal of all historical air emissions sources except for wind erosion of the minor, remnant contamination in surface soils, future air emissions from the site will be less than those in the past. Air modeling conducted for radionuclide parameters predict that, even for scenarios involving a fire in the historic 903 Pad area, emissions will be much lower than the EPA's ten millirem benchmark level for an airborne exposure pathway. None of the other potential air contaminants is regarded as having a significant environmental effect at Rocky Flats.

the population who are likely in the future to venture onto the Rocky Flats site (see the discussion of risk and alpha emitters in my "Rocky Flats: The Bait and Switch Cleanup," *Bulletin of the Atomic Scientists*, Jan./Feb. 2005, pp. 54-56 [http://www.rmpjc.org/2005/Rocky Flats/AtomicScientists/]).

3. Because the Remedial Investigation concluded that the Peripheral OU poses no current or potential future threat to human health or the environment, a Feasibility Study for this OU was not required and no remedial alternatives were evaluated. DOE is proposing that no remedial action be taken in the Peripheral OU. This conclusion is highly dubious for the simple reason that the site, especially the "peripheral" buffer zone, was never adequately characterized. Though many samples were collected in this large area, many of them were done by the kriging method by which samples in very large plots were composited to produce average readings, a method that is likely to miss or to average away hot spots.

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. No use restrictions of any kind are necessary for the Peripheral OU. The sampling populations and statistical analysis techniques used were consistent with commonly-used EPA guidance, in most cases providing more than the minimum requirements. The conservative exposure and risk assessment models used consider the natural variability of contaminants within soil or other media, and also recognize that exposure by selectively contacting only the relatively higher contaminant areas is not credible. Thus use of averaging and other statistical methods provides for conservative, but still credible exposure scenarios.

4. Of the three alternatives DOE says it will consider it prefers Alternative 2, which entails the implementation of institutional and physical controls. The foregoing comments already indicate that we find this approach wholly inadequate both for the near term and especially for the long term. We need say no more. Alternative 3, "Targeted Surface Soil Removal," by means of which the top 6 inches of soil would be cleaned to a plutonium concentration of 9.8 picocuries per gram, is hardly better. In commenting on the final draft Rocky Flats Cleanup Agreement we at the Rocky Mountain Peace and Justice Center recommended that the Rocky Flats site be cleaned to a level of 10 or less picocuries of plutonium per gram of soil without respect to depth. RFCA as finally revised and implemented allows up to 50 picocuries per gram of soil in the top three feet and much higher concentrations at deeper levels. DOE's Alternative 3 would be an improvement but would still leave high quantities of plutonium

The RI found that conditions in the Peripheral OU were suitable for unrestricted use and unlimited exposure. This included analysis of pathways by which contaminants currently buried at depths of 30 feet or more, might impact human or ecological receptors. The physical control identified in the selected CAD/ROD alternative (Alternative 2) is for signs to be posted that state that the Central OU is land retained by DOE and trespassing is forbidden. In addition, the CAD/ROD requires DOE to maintain institutional controls and issue the State of Colorado an environmental covenant to ensure the controls remain with the land in perpetuity.

The RFCA values mentioned relate to interim levels used during remedial actions to guide the scope of those remedial actions while underway. The RI analyzed exposure and risk based on sampling data and final conditions. In the Peripheral OU

behind. Because, as stated above, any plutonium remaining in the place may some day surface and be resuspended, DOE's Alternative 3, while not as problematic as Alternative 2, is also totally unsatisfactory.

plutonium concentration is less than 9.8 picocuries per gram except for a few isolated locations, with the highest reading at 20 picocuries per gram. Alternative 3 proposed to remove surface contamination above 9.8 picocuries per gram.

5. Finally, on p. 24 DOE says it will consider "community acceptance" in deciding which of its proposed alternatives to adopt. But DOE has already effectively shut out the [public] pubic [sic]. In 1995 the broadly representative Rocky Flats Future Site Use Working Group recommended by consensus that Rocky Flats be cleaned to average background levels as soon as it is technologically and fiscally possible to do this in an environmental responsible manner. The Citizens Advisory Board, the Local Impacts Initiative and other groups and individuals quickly adopted this proposal, making it the single most widely supported cleanup recommendation for Rocky Flats. Yet DOE and the regulators rejected it in favor of the Rocky Flats Cleanup Agreement as officially adopted in 1996 and modified in 2003, a plan rejected by 86% of the parties from the public that commented on it (see attachment). DOE has proceeded with a cleanup that enjoys very scant public support. Having done what many in the public regard as an inadequate cleanup, DOE now wants the public to say "yes" to an inadequate closure plan.

"Community Acceptance" is one of the two modifying criteria required for consideration by EPA regulations, the other being State Acceptance. The cited recommendations from 1995 were used by the DOE and the regulators to guide creation of the RFCA, which was also released for public review and comment. Much has changed in ten years, including completion of substantial remediation, designation of the site as a Wildlife Refuge through legislation, and increased knowledge of site conditions. The Draft RI/FS was released for public comment in October 2005 and was discussed in several public forums. The RI/FS and Proposed Plan were released for public review and comment in 2006 and included analysis of the latest information and conditions. Three information meetings were held in May, July, and August 2006 on the final RI/FS and Proposed Plan. Approval of the CAD/ROD will select the alternative based on current conditions and establish the requirements to implement that alternative. More detailed information describing how the DOE will meet the requirements of the CAD/ROD, including the topics in your comment, will be written in the Rocky Flats Legacy Management Agreement (RFLMA). The RFLMA will be made available for public comment, and once approved by the EPA and CDPHE, will replace the current RFCA as the enforceable agreement to ensure compliance with CERCLA, RCRA, and the CHWA.